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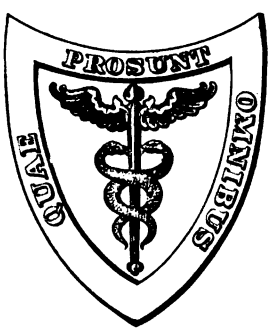

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ORIGINAL ARTICLES.

ON PERSISTENT FLATNESS ON PERCUSSION OVER THE LIVER AS PROOF THAT DIFFUSE PERITONITIS IS NOT ASSOCIATED WITH INTESTINAL OR GASTRIC PERFORATION.[1]

BY AUSTIN FLINT, M.D.

AT the annual meeting of the Medical Society of the State of New York, in 1882, I read a paper entitled "On the physical diagnosis of peritonitis, with and without perforation of the alimentary canal." This paper was published in the volume of the *Transactions* of the Society for that year. The chief object of the paper was to call attention to the value of persistent hepatic flatness on percussion in cases of diffuse peritonitis, as constituting proof that perforation of the alimentary canal has not taken place. I did not claim originality in submitting this point in diagnosis. It is true that few, if any, American authors had taken cognizance of it, and I think that reference to it will be found in few, if any, British works on practical medicine. It is, however, noticed by some recent German writers. The portion of my paper which I suppose to have been original, was an account of experiments upon the cadaver, which demonstrated that the injection into the peritoneal cavity of a moderate quantity of air causes the disappearance of the flatness on percussion over the liver, ascertained to have existed prior to the introduction of the air.

It must be apparent, on a little reflection, that the point in diagnosis involved in these experiments is an important one. With reference to prognosis, and in some measure to treatment, it is desirable to know whether or not diffuse peritonitis is associated with perforation. If, therefore, persistent hepatic flatness on percussion be a physical sign which warrants the exclusion of perforation in all, or even in a considerable proportion of cases, the diagnostic point certainly is worthy of consideration. My paper was published in THE MEDICAL NEWS, as well as in the *Transactions* of the New York State Medical Society. I do not recollect to have seen the point in diagnosis noticed in the writings of my brethren at home since the publication of the paper. I may, however, mention that at the meeting of the International Congress last summer, at Copenhagen, Prof. Ewart, of Berlin, well known by his writings on diseases of the digestive system, took occasion to tell me that he had read the paper, and that he was interested in the experiments. I had also an opportunity of presenting the topic at the Medical Section of the Congress, in a discussion upon the treatment of peritonitis by opium, availing myself also of the opportunity of stating the services of Alonzo Clark, in the inauguration of that method of treatment thirty years ago.

My object in the present paper is to cite, and to offer brief comments on a case reported in the article on peritonitis, contained in the second volume, just published, of the *System of Medicine by American Authors*. The chief interest of the case relates to its bearing on the value of persistent flatness on percussion over the liver as a means of excluding perforation. The case, quoted in full, is as follows:

"March 3, 1883, autopsy of Wm. Fletcher, age 59, ironworker. On Friday last, February 23d, he was attacked with pain in the region of the right iliac fossa; it was severe. There was no chill, but little fever, and only slight acceleration of the pulse. His stomach was a good deal disturbed, and the bowels were soon distended with flatus. I saw him on Tuesday following, with James D. Elliott. The bowels were a good deal swollen and very resonant on percussion; pulse 84. His stomach was still greatly disturbed, so that he retained no food, yet there was no green vomit, but much flatulency. The movements in respiration were particularly noticeable, being nearly or quite as much abdominal as in health. There was a short friction sound in inspiration, but an entire absence of the sound produced by peristaltic action. There was no dulness on percussion over the iliac fossa, and no pain on pressure over any part of the abdomen. I was careful in examining the right fossa, for the first pain was there, and it was severe; but there was no physical sign by which the perforation could be ascertained, still my mind dwelt on the probability of perforation, and I expressed my fears to Elliott regarding it. The respiration was of natural frequency. The bowels had not moved for two or three days."

"The next day Flint was added to the consultation. The symptoms had changed but little; the pulse was 102; no pain, no tenderness, no peristaltic action; slight friction at one point only; the abdominal respiration was as marked as before. Frequency of respiration 18; patient sleepy; pupils only slightly contracted. When we were in consultation I again expressed my fear of perforation, but Flint expressed the most decided opinion as to its absence, because there was no dulness to percussion over the liver. I had seen his paper on the intrusion of gas between the ribs and liver in cases of intestinal perforation, and felt as if I were almost reproved for entertaining the thought without physical corroboration."

"Monday, March 1st, the stomach has become more retentive; there was no pain and no tenderness on pressure; pulse 109; no friction sound, no sound of peristaltic action, no dulness on percussion over right iliac fossa, but resonance over the whole abdomen, excepting over the pubes; there the resonance was not clear; over a small space there was dulness, this was ascribed to moderate fulness of the bladder, and, as there had been no difficulty in emptying it, nothing was said of it. The abdominal respiratory movements were the same as before."

"Friday morning at 3 A. M., no marked change had occurred in the symptoms, but from this time onward

[1] Read at a stated meeting of the New York County Medical Association, June 15, 1885.

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there was a steady sinking of the vital powers. The pulse grew small and frequent, the hands became cool, the breathing more frequent, and without any sudden change or new symptoms, he died early in the morning. At the last visit there was no resonance on percussion over the liver."

"Autopsy, Saturday, March 3d, 2 P. M. The bowels were distended, as they mostly are in peritonitis, but not extraordinarily. There was now pretty free resonance over the liver. The section to open the abdominal cavity was carefully made, with the aim of ascertaining whether there was air or gas in the peritoneal cavity. When a half-inch opening was made through the peritoneum, gas was forced out through it for some seconds with an unmistakable noise. The bowels were not opened by this cut. The bowels exposed, a very thin film of false membrane was found on the middle and upper portions of the intestines, with a fringe of injection where the folds came in contact. But two or three inches above the symphysis pubis, the section opened a collection of pus which extended downward into the pelvis. Somewhere hereabout—neither of us could say exactly where—was found a lump of fecal matter, not indurated, as large as a marrowfat bean, the intestine still unopened. Search was made for the vermiform appendix. At first it was not recognized on account of its remarkable shortness; it was found, however, pointing directly toward the median line of the body, and was short because a part had been separated from the rest by slough. The end of what remained was marked by a border, one-eighth of an inch deep, of a very dark green gangrenous color. We did not attempt to measure the quantity of pus. It was six ounces or more. It was completely bounded and shut in by adhesions."

"At no time during life was there resonance over the liver, but there was at the time of post-mortem examination before the bowels were opened, due perhaps to the fact that at death the relaxation of the muscles allowed the gas to rise higher than it did during life. The unusual median position of the abscess is important in accounting for the absence of dulness, where it is usually found in slough or ulcer of the vermiform appendix."[1]

I infer from the foregoing report that the reporter regarded this case as invalidating the value of persistent flatness on percussion over the liver as a physical sign denoting absence of air or gas within the peritoneal cavity. This seems a fair inference although a decided opinion to that effect is not expressed. There is no other reference to my paper or to this sign in the article on peritonitis. Admitting the correctness of the facts in the case as stated in the report, my interpretation of them differs from that of the reporter.

Here was a case in which a patient was suddenly attacked with severe pain in the right iliac fossa. Four days afterward, when first seen by the reporter of the case, this pain had ceased, the movements of respiration were abdominal, there was no pain on pressure over any part of the abdomen, the pulse was 84, and the respirations of natural frequency. I submit that there was insufficient evidence of acute diffuse peritonitis at that time. On the fifth day I was added to the consultation. The symptoms were unchanged, except that there was some more increase of the frequency of the pulse (102). Flatness on percussion over the liver persisted, and on this fact I based a decided opinion that there was no diffusion of air or gas within the peritoneal cavity. On the sixth day, there was no change in the symptoms, except that there was some further increase in the frequency of the pulse (109), and improvement as regards the disturbance of the stomach. Up to this date the prognosis had been favorable. On the seventh day, at 3 o'clock in the morning, no marked change in the symptoms had taken place, but shortly afterwards the symptoms of collapse were rapidly developed, and death took place within a few hours.

The autopsy showed a circumscribed collection of pus—a peritoneal abscess—around the cæcum, with sloughing away of a portion of the appendix vermiformis, and the appearance of a very recent diffuse peritonitis. The flatness on percussion over the liver had disappeared, and on opening the abdomen gas escaped freely. My interpretation of these facts was, and is, that a few hours before death the gaseous, with perhaps some of the purulent, contents of the peritoneal abscess escaped beyond the boundaries of the abscess, and hence the development of diffuse peritonitis; the collapse and death being due to the latter.

At the time of the occurrence of this case, I made a brief memorandum of it in an interleaved copy of my treatise on the *Principles and Practice of Medicine*, with a view to the utilization of the case in a future edition of the work, as an illustration of the usefulness of persistent hepatic flatness in deciding against the presence of gas in the peritoneal cavity. My memorandum is as follows:

"February 28th, visited Mr. P. with Drs. Elliott and Clark. Peritonitis had existed for three or four days. At this time hepatic flatness was marked. He was apparently doing well under full opiate treatment, after March 2d, at 3 o'clock A.M. At that hour he was seen by Dr. Elliott, and there was no change for the worse. At 6 o'clock A.M., he was in collapse, and died during the forenoon. Before the autopsy, percussion showed absence of hepatic flatness, and great abdominal distention, a portion of the vermiform appendix had sloughed away, leaving an opening. There was a local collection of purulent matter near the appendix, but elsewhere the appearances did not denote intense inflammation. Conclusion: The patient was progressing favorably when sloughing of the appendix caused an opening, and death was by shock. The large intestine was collapsed; the small intestine much distended with gas. March 4, 1883."

This case is of interest in another point of view than with regard to the validity of persistent flatness over the liver, as proof against the presence of air in the peritoneal cavity, namely, the opportunity which it offered for surgical interference. It is often easier to look back upon the history of a case with the light afforded by an autopsy, and to consider what might have been done, than to decide upon a bold measure of treatment during the progress of the case. Here was a circumscribed peritoneal abscess as shown by the post-mortem examination. Had the purulent collection been demonstrated by exploration and removed by aspiration, it is possible that recovery might have taken place; or, again, the question may be raised, whether a free incision into the abscess might not have been advisable, and the perforated appendix ligated. As bearing on these

[1] System of Med. by American Authors, vol. ii. p. 1157.

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points of inquiry, a case reported by Dr. Z. B. Adams, of Framingham, Massachusetts, in the *Boston Medical and Surgical Journal*, November 20, 1884, is of much interest. In this case a peritoneal abscess was opened, a quart of pus escaping, and subsequent injections of carbolized water resorted to, complete recovery taking place. I may also refer to a paper by Leyden, in the *Verhandlungen des Vereins für innere Medicin zu Berlin*, in which this writer expresses the opinion that suppurative peritonitis should be treated after the plan in use in empyema, and cases are cited in support of this opinion.[1]

I must content myself with this bare allusion to the surgical treatment in cases of peritonitis, a subject which offers a wide scope for consideration and discussion.

TWO CASES OF FRIEDREICH'S DISEASE.[2]

BY WHARTON SINKLER, M.D.,
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THE two cases which I shall relate resemble in many respects the so-called Friedreich's disease, but in both is wanting one characteristic feature, namely, the hereditary or congenital history. In all of the cases reported by Friedreich there were two or more instances of the disease in the families to which the patients belonged. Gowers reported five cases of this form of ataxia in a family of nine children.

The cases of Friedreich and Gowers are not, strictly speaking, hereditary, for neither the parents nor any of the ancestors, as far as known, were ataxic. Cases are on record, however, which are hereditary; for instance, those of Carré, reported by Brousse, in which of twelve children seven were ataxic; the mother was ataxic, and her brothers and sisters, eight in number, as well as one cousin, were also affected with ataxia.

As far as I can discover, none of the progenitors of either of the cases which I report are ataxic. The brothers and sisters also appear to be healthy in all respects. I am indebted to the kindness of Dr. Weir Mitchell for the opportunity of reporting the following case:

CASE I.—C. G., æt. 18 years, male, consulted Dr. Mitchell in May, 1884. The following notes were taken by Dr. Morris J. Lewis: "There is no history of ataxia or of nervous trouble in his family. A paternal uncle and two first cousins had phthisis. No consumption in immediate family. Until eleven years of age the patient was considered perfectly healthy. He then had scarlatina, but recovered perfectly and had no kidney complications.

"An awkwardness, which had been previously noticed, but which had been thought to be habit, now became more marked, but it was not until the age of fifteen that he became aware of it himself. When thirteen he had an abscess of the lower jaw, and after this his disability increased more rapidly. His difficulty in walking is described as being 'a winding shuffling gait.' This was the first symptom noticed, but almost immediately after this he was observed to be awkward in the management of his arms and hands, and to have some hesitation in speech. The exact time of the appearance of each symptom cannot be fixed more accurately. Previous to this trouble he was considered in school to be a fluent speaker, and to be quick and bright, but since then he 'thinks slowly' and his speech is slow and awkward.

"Before 1876 he had occasional asthmatic attacks, which were relieved by smoking stramonium. In 1883 he had an attack of 'intermittent fever' and was in bed for three months (the rest in bed was ordered for his nervous trouble and not for his malaria). Since then he has never walked without help. For five years there has been difficulty in walking in the dark.

"*Present condition.*—He cannot walk without help, and then only with great difficulty and fatigue. His gait is exactly like that of an ataxic. He has great difficulty in writing or doing anything with his hands. His writing, however, has always been bad and awkwardly performed. He has not and never has had lancinating pains, areas of anæsthesia, or numbness. The knee jerk, cremaster and abdominal reflexes are all absent. He has no trouble of vision, his pupillary reflexes are present, and there is no nystagmus. There are no visceral crises, nor are there any trophic changes.

"Both great toes are the seat of considerable contracture, they are turned upwards towards the dorsum of the feet. There is also some contraction of the plantar fascia.

"He has perfect control over his bowels; there is some difficulty in the commencement of the act of urinating, but not after the flow has begun."

CASE II.—Mary G., æt. 11 years, came to my clinic at the Orthopædic Hospital and Infirmary for Nervous Diseases. She is the oldest of five children. The others are all healthy and have had no diseases of the nervous system. The parents are healthy, and neither they nor any ancestors they know of have had any nervous affections. Mary has had no other illness, except measles, which she had after the present trouble began. About October, 1882, when she was eight years old, her mother noticed that her hands were unsteady, and that she dropped things; then she walked awkwardly, and often stumbled and fell. This awkwardness and incoördination has increased. At no time has there been pain of any kind in the limbs or body. There has been no disorder of the bladder or rectum, and there have been no attacks of gastric disturbance. Her general health has been good and she has continued at school.

Present condition, May, 1885.—The patient is well nourished, and the limbs are full and well developed. While standing, the body sways to and fro, and this increases to a considerable extent when the eyes are closed; in fact, the patient would fall if she were not caught. There is marked antero-posterior curvature of the spine. This is muscular, and not due to caries of the spine. A line let fall from the neck falls clear of the sacrum. The movements of the hands are awkward and badly directed, but she can execute most movements. The patella

[1] Vide Am. Journ. Med. Sciences, page 573, April, 1885.

[2] Read before the American Neurological Society, June 19, 1885.

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reflex is absent on both sides. Skin reflexes good. Pupillary reflexes good for light and accommodation. The sensation of the skin is undisturbed, and there is no analgesia. The skin of the legs seems thicker than usual, and is closely adherent to the cellular tissue. The muscles of the legs respond normally to the faradic current. The response to galvanism seems to be quantitatively lessened, but so great pain is caused by this current that it is difficult to determine positively the degree of response. There is no affection of speech, and the intelligence is good.

The patient's walk is peculiar, but does not closely resemble that of an ataxic person. It is unsteady and staggering. When her eyes are closed she has difficulty in guiding the fingers to place them on any part. Urine normal. Dr. Charles A. Oliver has kindly made a most thorough and scientific study of the ocular conditions of the case. The following is his report:

O. D. V.$=\frac{6}{6}$. Sn. o.5 D. 8 cm.—63 cm.

O. S. V.$=\frac{6}{6}$. Sn. o.5 D. 8 cm.—63 cm.

Conjunctivæ have numerous small phlyctenulæ. Corneæ clear. Pupils round, three millimetres each in horizontal diameter. Irides equally mobile for both light stimulus and accommodative effort. Extraocular motion in all directions; no doubling of images produced. Upon extreme convergence and extreme divergence, both conjoined and separately, a horizontal nystagmus develops itself—this being of a peculiar character—three or four movements, each one lessening; the primary excursion extending over two or three millimetres, at about the rate of two to three per second, until fixation establishes itself. When binocular fixing is attempted for an object at about thirty centimetres distance on the median line, the horizontal nystagmic motion occurs, the eyes being first *out* under cover. In Von Gräfe's test (dot and line), the patient denies either persistent homonymous or crossed images; in a few moment's time the false image swinging upon the vertical line occupied by the true dot.

Ophthalmoscopic Examination without the Use of a Mydriatic.—O. D. Media clear. Disk round, about six diameters in apparent size. Decidedly gray in its deeper layers and rather over capillary in its superficial substance. Retinal arteries and veins normal in comparative size, color, and area of current. Scleral ring plainly seen in and out. Heavy black choroidal ring to the nasal side of the nerve. To the temporal side of the disk there is a black crescent of pigment with a narrow area of disturbed choroid beyond. Some retinal lymph reflexes specially along the main stems of the retinal arteries and veins. Macular region healthy in appearance. Fine retinal striation extending around the entire disk and far out into the retina, but nowhere hiding the outline of the nerve entrance. No splotches or hemorrhages can be seen throughout the entire fundus. H. with Ah. about 1 D. and o.5 D.

O. S. Media clear. Disk vertical oval, six by seven diameters in apparent magnitude. Much grayer in its deeper layers than in the other eye, with about the same superficial capillarity. Edges of disk everywhere visible, yet slightly veiled by a fine striation of retinal fibres. Scleral ring visible all around the nerve, but rather more plainly seen to the temporal and nasal sides. To the outside of the disk there is a narrow black rim of pigment, whilst to the inside there is a faint trace of a choroidal ring. Retinal vessels normal in relation to their average size, color, and calibre. No visible splotches or hemorrhages. Macular region appears healthy. Numerous lymph reflexes generally situated along the vascular distribution of the retina. H. with As. about 1 D. to 1.5 D.

Color Perception at Five Metres.

	O. D.	O. S.
Red.	3 mm.	3 mm.
Green	4 mm. = blue. 8 mm. = green.	9 mm.
Blue	7 mm. = green. 13 mm. = blue.	7 mm. = green. 13 mm. = blue.
Yellow	10 mm. = yellow.	7 mm. = yellow.

(This done by color-sense measure.)

Résumé and Conclusion.

1. Acuteness of Direct Vision for Form.—Normal in each eye. This shows that the brunt of the disease has fallen but slightly upon those fibres of the optic nerves which are distributed to the macular regions of the ocular retinæ; this, no doubt, being dependent upon their greater physical strength and their greater resisting powers to pathological change.

2. Direct Vision for Color.—The first test was made by placing the patient at five metres distance from a mechanical contrivance in which definite areas of certain known colors can be exposed to each eye separately.[1] Four colors were tried (red, green, blue, and yellow). The comparative results with the two eyes were about the same, although it must be remembered that the left eye, which was the second tested, had the advantage of previous knowledge, even though an attempt was made to exclude this error by telling the patient that a new card of colors would be used; the average results being what has been before determined to be normal.[2] The second test, which consisted in a modification of Holmgren's method of wool selection, in first having all of the skeins thrown upon a dead black surface and then adding to his three tests a blue and a yellow selection (which the present writer has elsewhere designated as "confirmation tests"),[3] showed the earliest recognizable state of subnormal color-perception in which the condition is manifested "by an incapability to respond to very weak intensities of the entire number of pure natural colors which constitute the normal average power of the human visual apparatus; this expression of inability being more pronounced with those beams of natural colored light which are productive of "green."[4]

These two series of results show that the atrophic change in the optic nerve fibres distributed to the macular regions of the ocular retinæ is in its incipiency, this being evinced by the slight recognizable defect in color-perception. The reason that the fault is more manifest amongst the "greens," is that such natural colors are the most difficult for normal perception.

3. Visual Fields.—These were carefully taken with a one-centimetre square each of white, yellow, blue, and red, at thirty centimetres distance, for each eye separately. No scotomata, excepting the normal ones for the disk areas (which in themselves were not abnormally enlarged), could be found. Each field for white was uniformly contracted in all meridians to about twenty to thirty degrees. The fields for yellow were limited to spaces bounded by twenty degrees. Blue area obtained from the right eye occupied an irregular space bordered by a circle equivalent to about fifteen degrees, whilst the same color in the left eye was seen in a space bounded by only five to eight degrees. The red field in

[1] Description in Arch. of Ophthal., 1881, vol. x. No. 4, p. 438.
[2] Arch. of Ophthal., vol. xi. No. 1, p. 65.
[3] American Journal of the Medical Sciences, January, 1884.
[4] Ibid., April, 1885, p. 470.

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the right eye enclosed a space of about five degrees in all directions, whilst the same color in the other eye gave an area of about two to three degrees.

These unequal and great contractions of the visual fields in the two eyes are important and show two absolute conditions: first, that the degenerative process has invaded the two optic nerves to different degrees; and, second, that although the pathological disturbance has most probably involved each optic nerve uniformly in transverse section, yet upon account of the lower functional ability of the circummacular distribution in the ocular retinæ (dependent upon a lower grade of physical structure), visual expression of structural degeneration has been greater amongst the peripherally placed fibres, thus producing concentric contraction of the visual fields.

4. Motions of Iris.—Want of Argyll-Robertson phenomenon. The entire absence of "reflex-iridoplegia" in this case is interesting. The facts that the macular fibrils of the afferent path to the central nucleus are in excellent working condition and the efferent tract has been but slightly affected, combined with the assumption that the special centre (*i. e.*, the cerebral area just behind the space set apart for the centre governing the act of accommodation) has as yet escaped any detrimental disturbance, give very good answer for the reason of the non-appearance of this symptom.

5. *Extra-ocular Motion.*—Horizontal nystagmus in each eye. It is undoubtedly a *paretic* condition.

Conclusion.—Careful analyses of these various eye symptoms have drawn me to the conclusion that in this case we have to deal with ocular conditions which are related to some peculiar form of locomotor ataxia.

These cases, with certain exceptions, are decidedly like locomotor ataxia, but the ordinary form of this disease is very unusual in children. Hammond says it is met with between thirty and forty-five years of age. Eulenberg[1] in 149 cases found but one instance (female) under ten years of age. Erb,[2] out of eighty-six cases of his own, met with three instances between eleven and twenty years.

In a "critical digest of the so-called hereditary ataxia, first described by Freidreich," by Dr. J. A. Ormerod,[3] the writer has collected forty cases of this affection. I am indebted to this paper for much valuable information on the subject.

This author remarks of the disease that its most striking feature is its tendency to attack many members of the same family. Next, that it attacks in early life. "Friedreich stated that it coincided with commencing or developing puberty, the dates of his cases varying from æt. 13 to æt. 18, but other authorities have observed it still earlier. Thus of Rutimeyer's cases it began above the age of four years (one child indeed had never been able to walk straight); and in two of Hammond's cases it began at a similarly early age." The first symptom is almost invariably ataxia of the legs, then it gradually extends upwards, affecting the arms, head, and, finally, the speech. Nystagmus also occurs late in the disease. The absence of sensory symptoms is of great interest. In typical cases of locomotor ataxia the pains, as is well known, are a prominent symptom, especially in the early stages, and later on sensory disturbances: anæsthesia, paræsthesia, etc., frequently are present. In Friedreich's disease "pain is conspicuous by its absence." "Romberg's symptom"—*i. e.*, inability to stand with the eyes shut and the feet together, is not always present, but the knee phenomenon is always absent, spinal curvature is often present. Ormerod says a combination of lateral and angular curvature is frequent, but that lateral alone is more frequent than angular curvature alone. It is said to be a very early symptom. In my patient, Case II., there is marked lordosis. Indeed, so marked was this condition that on first seeing the case and observing a very stout condition of the calves of the legs in connection with the spinal curvature I suspected it might be a case of pseudo-hypertrophic paralysis.

Paralysis and atrophy come on later in the disease. Many of the cases recorded were under observation for a great number of years. One of Friedreich's was seen by him for thirty-one, and another for twenty-five years. As the disease progresses, the patient becomes utterly helpless from the degree of paralysis.

Post-mortem examinations were made in seven of the cases collected by Ormerod. The following is a *résumé* of the changes found:

"In several cases the cord and medulla were small in size, and this is certainly a fact of interest when we consider the hereditary character of the disease, for a cord congenitally imperfect may be the more prone to degeneration, and to degenerate at an early age. Advanced posterior spinal sclerosis was found in every post-mortem. The changes in the medulla were slight and apparently secondary to the spinal. So in Friedreich's opinion were those which he found in the nerve trunks; while in the cerebrum and cerebellum, no trace of chronic disease was found."

Ormerod says "he cannot adopt Hammond's suggestion that the lesion is primarily situated in the medulla or cerebellum. He thinks that as the sclerosis involves the entire length of the posterior columns, and appears to spread upwards much as in ordinary ataxia, we should class it as a systematic tract lesion, and not as a part of a disseminated sclerosis."

Hammond[1] believes that Friedreich's cases are not forms of ataxia at all, but are instances of disease of the medulla or cerebellum extending secondarily to the cord. Erb, on the other hand, accepts Friedrich's views, stating that "most cases of tabes dorsalis may be grouped under one of two types—*i. e.*, the classic variety of Duchenne, or that described by Friedreich."

In conclusion, we would recall the difference in the two forms of the disease. The typical variety begins with lightning pains, disorders of micturition, transient paralysis (especially oculo motor), absence of pupillary reflex; the Argyll-Robertson symptom; visceral crises; and trophic disturbances in the joints and bones. All of these are absent in the form described by Friedreich, and in this latter variety the spread of the affection to the arms is more rapid, the spinal curvature, the disturbance of

[1] Quoted by Ross, Diseases of the Nervous System, vol. ii. p. 213.
[2] Ziemssen's Cyclopædia, vol. xiii. p. 524.
[3] Brain, April, 1884, p. 103.

[1] Journal of Mental and Nervous Diseases, 1882.

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speech, and the nystagmus are peculiar to it. The early age at which it occurs and the family predisposition to the disease make up the other points of difference.

On the other hand, in both types there are the ataxia and incoördination beginning in the lower extremities, the absence of tendon reflexes, and "the Romberg symptom," and some of the eye lesions.

A HEAT CENTRE IN THE CEREBRUM. PRELIMINARY NOTE.

BY ISAAC OTT, M.D.,
OF EASTON, PA.

IT is nearly twenty years ago that Tescheschichin announced, as the result of experiments, that section of the medulla oblongata where it joined the pons caused an increase of temperature. He arrived at the conclusion that physiological experiment and clinical facts point to a moderation-centre in the brain. Some time ago I announced the existence of a heat centre in the vicinity of the corpora striata.[1] This fact has recently been confirmed by Messrs. Aronsohn and Sachs.[2] Lately I have attempted to ascertain more definitely the position of this centre. The experiments were made upon rabbits, not fastened down, in a room the temperature of which was about 75°. The temperature in the rectum was noted, the skull was trephined, and punctures made with a coarse needle through the cerebrum down to its base, and the increment of temperature noted. A rise of temperature usually ensued after injury to various parts of the cerebrum, but it disappeared in a few hours. If, however, it struck a certain point in the anterior inner portion of the optic thalamus, near the corpus striatum, then the rise was from three to four and a half degrees, and remained nearly at this height till next day. The cerebral cortex has not anything to do with it, as I have frequently removed the cortex in different places, and the rise was only transient. There is a possibility that at this point the injury calls vaso-motor influence into activity and causes an increase of temperature. To decide this point, calorimetric experiments are necessary. A few experiments made with D'Arsonval's calorimeter showed an increased heat production. More extended experiments will be necessary to decide this point.

MEDICAL PROGRESS.

DOUBLE OVARIOTOMY(?); CURE.—M. FERRIER reports a case of double ovariotomy remarkable on account of diverse opinions held by eminent diagnosticians as to the nature of the growth previous to operation. The patient, a woman aged forty-three years, had menstruated regularly since the age of fourteen, but at the time of her entrance into the hospital the menstrual flow which hitherto had been profuse, had become scanty. The patient was married at the age of twenty-one, had never borne children nor had a miscarriage. About twelve years previously she experienced pain in the hypogastric and left iliac regions, which was increased by walking, prolonged standing, or by any movement which affected the abdomen. Pressure produced a variable effect. Menstruation was without influence, and dorsal decubitus caused the pain to disappear completely. To the pain already described another was added, having its location in the umbilical region, and somewhat analogous to the pains of menstruation, though not coinciding with them as to time.

This pain lasted from forty-eight hours to five days, and appeared two or three times yearly. The abdomen in the meantime did not become enlarged, and though the pain attracted her attention to the abdomen, the woman was not aware of the existence of a tumor at the time, two years after the initial symptoms. M. Van Petegen was consulted, and recognizing ulceration of the cervix, treated the patient without affording her relief, and having made further examination recognized the tumor. The woman next consulted Prof. Duplay, of Paris, who recognizing the tumor, counselled immediate operation. M. Péan, consulted a few days later, pronounced the tumor to be fibro-cystic, and did not consider operation necessary, at least at once. Four or five years later M. Parise, of Lille, diagnosticated multiple fibro-cystic tumor, and pronounced operation impossible. Soon after, at Strasburg, M. Kœberlé diagnosticated a fibro-cystic tumor, and refused to operate.

The woman finally entered the Hôpital Bichat, January 13, 1884, for the purpose of undergoing operation. Examination showed the belly to be asymmetrical. The circumference at the umbilicus was 39.6 inches, The distance from the umbilicus to the ensiform cartilage was 7.2 inches, and from the os pubis to the umbilicus, 6 inches.

Palpation revealed the presence of two tumors. One was situated in the median line in the hypogastric region, hard, non-fluctuating, and about the size of an apple. The other occupied the whole of the right iliac fossa, and throughout its whole extent, fluctuation was plain.

January 19, puncture was made to the right of the umbilicus at a level with the fluctuating tumor, and a dark-brown fluid full of crystals of cholesterine obtained.

January 22, operation was performed by M. Ferrier, assisted by MM. Périer, J. Championniére and Berger. A median incision was made extending from the umbilicus nearly to the pubes. The peritoneum was found to be vascular and thickened, necessitating the use of the hæmostatic forceps, and containing also a small quantity of ascitic fluid. The right cystic growth was covered by the epiploön which was adherent to it and to the abdominal wall. Below, the subpubic tumors were filled with cysts containing a clear fluid which greatly distended them. The epiploön was gradually detached from the cysts and from the abdominal wall, without much loss of blood. Numerous adhesions existed between the cystic mass and the abdominal wall, and, moreover, on account of the ascites and the long duration of the disease, the adhesions appeared macerated, infiltrated, and of a darkish color. Below and to the right there were extensive adhesions between the cyst and cæcum, which when broken up necessitated numerous ligatures. The right cyst was punctured, and contained about seven pints of a reddish colored liquid

[1] Journal of Nervous and Mental Diseases, vol. xi., April, 1884.
[2] Deutsche medicinische Wochenschrift, December, 1884.

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full of cholesterine crystals. The abdominal incision was now extended toward the umbilicus. The cyst was found to be connected below with the suprapubic polycystic mass, whose pedicle was ligated with two catgut ligatures. By this procedure the polycystic mass was disengaged and gradually removed from the pelvis, and was thus found to be composed of cysts united to both ovaries, and united below with the uterus. To the left, a second pedicle was discovered, which seemed to correspond to the left ovary. Its section permitted the right uterine pedicle to be reached, and to be tied with a silk ligature. Two vegetative masses were discovered behind the right uterine pedicle and upon the posterior wall of the uterus. These were torn away and removed, and a catgut ligature applied to each of the bleeding points. The toilet of the peritoneum was carefully completed, and the abdominal incision closed with eight deep, and one superficial suture. Strict antiseptic precautions were observed. The operation occupied fifty-five minutes. The patient rallied from the operation, and made a good recovery, and left the hospital, cured, February 23, 1884. Though the tumors appeared to be ovarian in their origin, the subsequent reëstablishment of the menstrual function renders the diagnosis doubtful. —*L' Union Médicale*, June 4, 1885.

NEPHROTOMY.—PROFESSOR FRANZALINI, on May 23, 1885, removed the right kidney of a woman in whom the organ was the seat of multiple foci of tuberculous degeneration. On account of the vast size of the tumor, which is said to have been as large as the head of a seven months' fœtus, and the uncertainty of the diagnosis, the organ was removed by abdominal section. The operation was performed in one hour. The patient is in good condition, and her recovery is confidently expected.—*Gazzetta Medica di Torino*, June 5, 1885.

STIMULATION OF THE VAGUS IN CHLOROFORM NARCOSIS.—DR. EMIL AMRUS has discovered the following interesting facts in reference to stimulation of the vagus in animals anæsthetized by chloroform:

If the peripheral end of the nerve be stimulated with a mild faradic current in an animal so anæsthetized—

1. The duration of the heart's pause is disproportionately long as compared with the intensity of the current.

2. In some instances, in which a relatively weak current is applied, the duration of the heart pause attains a maximum, and, if the strength of the current be intensified or diminished, the duration of the cardiac pause decreases.

3. If the duration of the heart pause is prolonged by continued stimulation through twenty-five or thirty seconds, cessation of respiration also occurs.—*Allgemeine Wien. med. Zeitung*, May 12, 1885.

ALBUMINATE OF MERCURY IN THE TREATMENT OF SYPHILIS.—DR. MAX BOCKHART strongly recommends albuminate of mercury in the treatment of syphilis. After repeated trial he has found it to be efficacious and well borne. Macular exanthems disappear after from three to five injections, and other syphilitic manifestations appear to yield equally well to the remedy. Gummata also disappear with great rapidity by use of the drug, which seems even superior to the peptonate of mercury. Local inflammation never occurs, and, as a result of its hypodermatic use, and though injected into the back, nates, and thighs, induration and abscess never occur. Generally, also, the hypodermatic use of the drug is entirely painless. A solution of albuminate of mercury, of a strength of 1½ per cent., is recommended for general use in injections made daily or every two days. The solution should be kept in a cool place and in colored bottles.—*Monatshefte für Prakt. Dermatologie*, May, 1885.

FRACTURE OF THE OLECRANON.—At a meeting of the Academy of Medicine, of Genoa, held May 4, 1885, Professor Caselli presented a young man who had come to his clinic with an ununited fracture of the olecranon, and on account of which the power of extension in the arm was altogether lost. Professor Caselli removed, by a small incision, the loose fragments of bone and the callus thrown out at the seat of fracture, and sutured the fragments of the bone with a strong metallic wire. Having thus approximated the fragments, he twisted the two ends of the wire, made an incision in the periosteum, and slightly excavated the lower fragment beneath the elevated periosteum, and into the small cavity thus formed, introduced the twisted ends of the suture, after which he replaced the periosteum. Reunion took place by first intention, and in eighteen days the patient was completely cured. The articulation at the elbow was restored to a normal condition, and all movements of the arm are naturally performed. The wire suture remains encysted and causes no discomfort or unfavorable symptoms.—*Gazzetta degli Ospitali*, May 24, 1885.

PULMONARY CONGESTION AND ITS PATHOGENY.—DR. L. QUEGRAT, in an exhaustive study of pulmonary congestion, distinguishes two forms of the pathological conditions—the idiopathic and secondary.

The idiopathic form occurs: 1. As a result of pneumonia. 2. As a result of pleurisy.

Secondary congestive conditions may be (*a*) pulmonary, (*b*) pleural, (*c*) cardiac, (*d*) neuropathic, (*e*) diathesic, (*f*) infectious, (*g*) dyscrasic, (*h*) dependent on the existence of a vacuum.

M. Quegrat considers the pathogeny of pulmonary congestion to be very variable, and but little understood. Thus, in secondary congestion, the condition is at one time caused by an impediment to the return circulation, a mitral insufficiency, for example, which causes the gradual engorgement of the lungs. At other times it is not the impediment offered to the return, but a too abundant afflux of the blood, arising from a local irritation, which causes the congestion. This condition is frequently seen in the region of tuberculous foci.

In a third category may be grouped cases of congestion originating from functional defect of the pulmonary vasomotors, as is seen in the unilateral congestion consecutive to cerebral hemorrhage, and located on the paralyzed side; and also in those reflex congestions consecutive to attacks of bilious colic, or to strangulated hernia. The condition under consideration is thus plainly seen to be due to:

1. Congestion due to obstruction to the circulation of the blood.

2. Congestion due to local irritation.

3. Neuropathic congestion.

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It is evident, however, that, though these three groups only are at present actually established, in many instances the pathological process is undiscovered. Thus, in rheumatism and arthritis, the causes which produce congestion and the rôles assumed by the nervous system, the fluid of the body, or infectious agents, are questions which are still unsolved.

As to the condition of the so-called idiopathic congestion, sometimes attributed to cold, or considered the manifestation of a catarrhal condition, or as being a congestive fever of the lungs, nothing positive is known. —*Revue de Médécine*, January 10, 1885.

THE INFLUENCE OF SYPHILIS UPON INFANTILE MORTALITY.—At a meeting of the French Academy of Medicine, held March 4, 1885, DR. ALFRED FOURNIER concluded an address upon the reduced increase of the population of France, with the following observations;

1. Syphilis constitutes an active and powerful cause of infantile mortality; the average deaths due to this cause may be estimated at 68 per 100, of children descended from parents suffering with the disease.

2. The remedies by which this special cause of infant mortality may be diminished are of two classes: 1. Methodical and sufficiently prolonged medical treatment, and prohibition of premature union of parties suffering from syphilis. 2. Measures relating to public hygiene (the general prophylaxis of syphilis).

The first are in the hands of the physician, and by using them rigorously the mortality due to infantile syphilis may be much decreased. Measures of the second order, Dr. Fournier held, are in the hands of the health committees and general government, and these where their resources are inefficient should be improved.—*Annales de Dermatologie et de Syphiligraphie*, May 25, 1885.

TREATMENT OF DIPHTHERIA.—DR. LUNIN, in *Wratsch*, 1885, Nos. 2-4, gives a *résumé* of some of the methods commonly approved in the treatment of diphtheria:

1. Treatment with corrosive sublimate. The mucous membrane of the fauces is painted with a 1 per cent. solution and a gargle of a 0.02 per cent. solution is used. But as the latter procedure is too precarious in children, the mouth and throat should be hourly washed with the solution, with the aid of the Rauchfuss spatula, so that it may be certain that the application comes in contact with the entire posterior walls of the throat.

2. Treatment with the liquor ferri sesquichloridi. This remedy may be administered in doses varying with the age of the patient. From one drop every two hours to two drops every half hour, and in daily doses of from 15 to 120 grains. In addition, the mouth and fauces should be hourly cleansed with a 3 per cent. solution of boric acid.

3. Treatment with quinine. This remedy may be used, according to Serpert's prescription, in a strength as follows:

℞.—Quiniæ	gr. lxxv.
Aquæ,	
Alcoholis	āā f℥iss.

The mucous membrane of the throat and palate to be painted every two hours. In addition, the throat should be gargled hourly with a solution of quinine as below:

℞.—Quiniæ	1 part.
Water	500 parts.
Alcohol	50 parts.

4. Treatment with resorcin. Andeer recommends in mild cases of the disease the simple cauterization of the parts with resorcin crystals, or with a concentrated vaselin and resorcin ointment. In moderately serious cases, repetition of the above treatment is recommended, while in severe cases the local and internal use of the drug is recommended.

Cauterization is to be performed by the physician personally; for painting the throat a ten per cent. solution is recommended, and a one per cent. solution should be used for washing the parts; applied at first every two hours and afterwards every hour. The remedy thus far has not been administered internally, though in frequent painting of the throat it is certainly swallowed in greater or less quantity.

5. Treatment with bromine according to the prescription of Von Hiller, who recommends the following formula:

℞.—Bromine, pure,	
Potass. brom. . . .	āā gr. 7½–15.
Aquæ	f℥vj.

With which solution the throat should be washed every two or three hours. Contemporaneously inhalation of a 0.2 to 0.4 per cent. solution of bromine should be practised every half hour or hour for a period of five minutes.

6. Turpentine may be used as recommended by Von Bosse. The patient should twice daily receive a teaspoonful or an hourly dose of ten drops of the drug. In addition, the throat should be washed with a three per cent. solution of borax. If vomiting or diarrhœa ensue, the administration of turpentine should be discontinued.

Following these several methods of treatment, tables are appended, showing the apparent success or failure of each remedy.— *Centralblatt für klin. Med.*, May 2, 1885.

THE EMPLOYMENT OF CURARE IN THE TREATMENT OF EPILEPSY.—DRS. BOURNEVILLE and P. BRICON, in a therapeutic study on the use of curare in epilepsy, based upon the clinical observations of thirty-three cases of the disease in which the drug was employed, have reached the following conclusions:

The results attained are entirely different from those recorded by some authors. Certainly, in twenty-one patients affected with various forms of epilepsy, some adults, and some children, submitted to subcutaneous injections of curare during three, six, and even a greater number of months, but a single case was found in which noticeable benefit was received from the treatment. One other was slightly benefited. In a third, though the number of the attacks was not diminished, their violence was abated, a common result in the treatment of epilepsy. In summing up the results obtained the writers find that they are but little encouraging, and consider that curare should be dropped from the list of drugs worthy of trial in the treatment of epilepsy.—*Archives de Neurologie*, May, 1885.

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SATURDAY, JULY 4, 1885.

THE INTERNATIONAL MEDICAL CONGRESS

THE new Committee of Organization of the International Medical Congress, met in Chicago last week and the result of its work is greatly to be regretted. The original committee, appointed for that purpose in 1884, proceeded to organize for the International Medical Congress in 1887, in accordance with the rules and customs of previous Congresses. Upon its plan the medical profession of the United States was to be represented as a national body, including all regularly organized medical societies, general or special. The American Medical Association, however, at its late meeting in New Orleans, rejected this arrangement, legislated out of existence the thirty-four members added by the authority given the original committee at the time of its appointment, and added thirty-eight new members to the original committee of eight, in order to put the Congress exclusively under the charge of the Association, with the States and Territories as the unit of representation. The new committee seems to have carried out its instructions pretty thoroughly, although there are still perhaps some districts not sufficiently represented in the appointments made.

It was decided that the American members of the Congress must be members of the American Medical Association, or of societies affiliated with it, on the usual basis of representation of one to ten; in other words, the Congress is to be a meeting of the American Medical Association with a rather larger number than usual of invited guests.

In his remarks before the Committee, Dr. Billings gave the views of the original Committee as follows:

"The invitation was purposely worded as coming from the Medical Profession of the United States, and not from the Association only, in order that all regular physicians in the country, and in particular the various important societies devoted to special branches of medicine, such as the Gynæcological, Ophthalmological, Laryngological, etc., and also the societies in our large cities which are specially devoted to scientific work, such as the Academy of Medicine of New York, the College of Physicians of Philadelphia, etc., should feel that they were included and must share the responsibility of providing a proper reception for the Congress.

"The Congress is a purely scientific body, taking no cognizance of questions of Medical Ethics or police. It accepted the invitation on the supposition that its rule in this respect would not be interfered with, and that those who would come to us in 1887, would meet our various eminent specialists whom they know either personally or by reputation. To make this impossible, as the newly organized Committee proposes to do, is a discourtesy to the Congress.

"So long as the Old Code men in New York meet the so-called New Code men as freely in consultations and in scientific societies as they now do, there is no sufficient reason for refusing to meet them in a purely scientific body like the International Medical Congress."

This remonstrance had not the least effect in modifying the determination of the Committee.

It seems clear that the meeting in 1887 is to be an International Congress in name only and that it is really to be a very large meeting of the American Medical Association, and that the vastly larger body of the medical profession of the United States is to be excluded. What the result will be it is premature as yet to conjecture; but we fear that, under the circumstances, a number of distinguished men, both at home and abroad, whom it was hoped would be present and take part in the work, will not attend.

The management of the matter has passed into the hands of a very different set of men from those who had charge of it at the outset, and the question whether any of the original Committee of eight, or of those who were added to them to form the enlarged Committee which did the work which the new Committee have just condemned and set aside, should consent to accept office under the new *régime*, demands serious consideration. From present appearances it looks as if there would be but little, if any, difference of opinion upon this point.

As we go to press we learn that the dissatisfaction with the work of the new committee is so great that the members of the medical profession of Philadelphia who were concerned in the organization of the Congress, have held a meeting and have unanimously decided to decline to hold office under the new

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organization. As will be seen by reference to the resolutions passed, this list includes the names of the Chairmen of the Sections of Medicine, Surgery, Anatomy, and Therapeutics; and of the new Secretary General. With the probability of similar action being taken elsewhere, the present outlook is not encouraging.

We are also informed that Drs. Billings, Brown, Johnston, and Hays, of the original committee of seven, have resigned from the enlarged Committee.

INDIRECT FRACTURES OF THE CRANIUM.

THE history of fractures of the cranium occurring at a point some distance from that which has received a blow is as old as the history of medicine itself. Such fractures have been described by Hippocrates, Celsus, and Galen, as well as by almost all the writers of consequence who followed them. Under various names they have been recognized, and in various ways they have been accounted for, until it is no light work to follow the devious course which the current theory of their mechanism has pursued, since men's thoughts were first turned to this phase of the subject.

The earliest attempt to explain their mode of production was the fanciful one implied in the name *resonantia*, by which no more was signified than that in some way a fracture at a point opposite to that of a blow corresponded to the echo which was produced by a sound. The ancient term *contrafissura*—which is not convertible, as many have seemed to think, into the modern term *contre-coup*, or counterstroke, since the one signifies an effect, and the other a cause—throws no light whatever on the subject. But, about two hundred years ago, Boerhaave, and after him his commentator, Van Swieten, advanced a theory in regard to the mechanism of these fractures which, while incapable of the exact application which they gave it, is very suggestive as to some other phenomena of cerebral injury. They attributed fractures at a part of the skull opposite to that which had been struck, to the impact against the opposite wall of a column of the contents of the skull, which, from the amount of fluid the contents contain, they believed would have the physical properties of a column of water, one of the most incompressible of substances.

Then, a little over a hundred years ago, the attention of French surgeons was directed to what had come to be known under the general term *contre-coup*, by the offer, by the Royal Academy of Surgery, of a prize for the best essay on this subject. The result was a series of essays in which these remote fractures were generally explained upon the basis of the physical properties of the cranial bones, and principally upon that of the laws of the propagation of vibrations in solid substances. Of the writers of this time, Chopart attached considerable weight to the consideration that the skull may be considered as a solid box, the walls of which, under the influence of a blow, will be driven together in the direction of the force applied, and will be driven apart in the diameter which is at right angles to this one. Sir Charles Bell, in the beginning of this century, called attention to this same fact, and compared the disintegration which takes place in certain parts of the skull to that which may take place in an arch, the base of which is forced asunder by depression of the top. In 1844, Aran published, in the *Archives Générales de Médecine*, a paper on this subject in which he propounded a theory which is often spoken of as Aran's law, namely, that fractures of the base always begin in the vault, and reach the base by the shortest route, while lying wholly within a zone corresponding to one of the three great fossæ at the base.

In England, about this time, Mr. Hilton accepted the vibration theory of indirect fractures of the skull, and thought they reached the base under the influence of the architectural construction of the cranium, at the same time propounding the theory that vibrations which travel along certain lines to certain points are there lost by the interposition of soft structures, or by their discharge from the extremities of certain processes upon or into the cerebro-spinal fluid. Next, in Germany, the idea of the elasticity of the cranium as a whole began to attract great attention. In 1854, Bruns, of Tübingen, made some experiments which established what Chopart and Sir Charles Bell had assumed on theoretical grounds, namely, that the skull, under the influence of a blow, changes its shape. Other German investigators added confirmatory testimony, drawn from analysis of specimens of actual fractures. Then, in France, Félizet made an elaborate study of the subject of fractures of the cranium, and carried out a number of ingenious experiments, from which he concluded that almost all fractures of the skull start in the vault and travel toward the base, in lines which are determined by the restraining influence of several buttress-like portions of the bones—the nasal and occipital protuberances, the petrous bones, and the orbito-sphenoid prominences. Futhermore, he considered the basilar portion of the occipital bone with the two antero-lateral portions of the wall of the foramen magnum as a *pièce de résistance* which always remained intact.

After Félizet, the study of these fractures was taken up by Baum, who demonstrated by experiment the untenability of the pure vibration theory. Then Bergmann took it up, and advocated what may be called the elasticity theory, comparing indirect fractures of the skull to those which take place in the wall of the thorax, and to those of the eyeball

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under pressure, as shown by Arlt. Then came the experimental investigations of Messerer and Hermann, which added considerably to the strength of the same theory. Next, von Wahl, resting his opinions partly on the work of his predecessors and partly on experiments and observations of his own, adopted and advocated the theory that fractures of the skull, with the exception of direct fractures, are caused by its being burst by expansion of the part which is equatorial to the axis of the force applied. After this Messerer returned to the study of the subject, and made a large number of experiments, the results of which completely refute the essential parts of the theories of Aran and of Félizet, and seem to confirm the theory which is now known in Germany as the *Berstungs Theorie* (bursting theory). Finally GREDER, in a paper which has prompted this article, "Experimentelle Untersuchungen über Schädelbasisbrüche," published in the *Deutsche Zeitschrift für Chirurgie*, March 9, 1885, has made still another study of indirect fractures of the skull, which seems to leave little doubt that these are, in the great majority of cases, due to the elastic properties of the cranium as a whole.

Of course, it will be understood that no intelligent student will fail to recognize—what was thoroughly recognized centuries ago—that fractures of the base of the skull are also caused by its being crushed in by force applied by the spinal column; in which case they are of the most direct sort imaginable. But a careful study of the valuable work in elucidating the mechanism of fractures of the skull, which has been done in Germany during the past five years can hardly fail to convince an unprejudiced student of the correctness of the theory which is advocated by Greder in the paper to which reference has been made. His experiments furnish a striking confirmation of the correctness of the bursting theory, which had been arrived at by both inductive and deductive reasoning. He tested it by applying regulated blows to skulls which were intact, and some of them still connected with the trunk, and he found that the fractures he produced lay in the lines which, according to the bursting theory, they should have occupied. His conclusions are: that the bursting theory affords a satisfactory explanation of indirect fractures of the base; that the fractures are parallel to the direction of the force which causes them; and that the extension of the fractures—or, to speak more accurately, fissures—is influenced by so many intercurrent conditions peculiar to each skull that it can, at best, be only suspected from the intensity of the violence which causes them. As to the point at which fractures of this sort start, he holds that it does not always lie in the point of impact, nor always in the equatorial line, but at that point in which the proportion of the resistance to the disruptive force is at a minimum. This, he thinks, will be found most frequently at the equator or near it.

We commend these views to those of our readers who are interested in the study of the mechanism of fractures of the cranium, and feel that it is especially important to call attention to them, and to those of which they form the natural sequel, since it would appear, from what is taught in most surgical works in the English language, that these very recent investigations of the Germans have not yet been fully appreciated by our own workers and writers. There may be a flaw in them; but, as they now stand, they seem to furnish a very satisfactory explanation of indirect fractures of the skull, and to present the convincing spectacle of a theory which, while arrived at partly by deduction, has been abundantly established by the test of experimentation.

EXPLORATORY INCISIONS IN THE DIAGNOSIS OF ABDOMINAL TUMORS.

TERILLON in the *Revue Medico-Chirurgicale des Maladies des Femmes* for May, in a paper read before the Society of Surgery of Paris, considers the subject of exploratory incisions for the diagnosis of abdominal tumors. He has collected 179 cases in which such incision was made: of these 39 died, and 140 recovered; and he, therefore, regards the "cures" as 79 per cent. But it is hardly just to consider exploration as a curative agency—it can only be said that exploratory incision was not fatal in 79 per cent. One interesting fact shown by Terillon's statistics is that an exploratory incision in malignant disease is very much more liable to be followed by death than if the disease be non-malignant.

Terillon observes that an exploratory incision ought to have one end, to make the diagnosis clear for the performance of a radical operation. It is for the surgeon who undertakes it the first step in a laparotomy, that has behind it an unknown, which must be discovered before passing further.

The exploratory operations collected by Terillon have been followed by a far higher rate of mortality than have those in the hands of Tait, Knowsley Thornton, Keith, Billroth, and other experienced operators.

PRIMARY CANCER OF THE VAGINA.

As is well known, primary cancer of the vagina is a rare affection, while it is very common for cancer involving the vaginal portion of the neck of the womb to extend to the vagina. In this extension of the disease the anterior vaginal wall is usually first affected, while the primary disease in most cases attacks the posterior wall. In the last fact we have a remarkable contrast between primary cancer and

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cysts of the vagina, the latter more frequently affecting the anterior wall.

The *Centralblatt für Gynäkologie* of April 18th, contains reports of two cases of primary cancer of the vagina, one by GRAMMATIKATI, the other by MENZEL. The first patient was 27 years old, and the cancer was of the anterior wall; the second patient was 55 years old, and the disease was seated in the posterior wall. Each case was operated on successfully.

According to Grammatikati, there have been but 38 cases of primary cancer of the vagina published, to wit, 6 by West, 24 by Küstner, 3 by Schrœder, 1 by Grünewald, and 4 by Bruckner. These 2 cases added make the entire number 40. McClintock has remarked, that he has seen several cases of cancer of the vagina; but in all these cases the disease seemed to have extended from the vulva, or from the uterus. Yet it is quite possible that some of the cases where the uterus and vagina were both affected by the disease, and where it was supposed to have extended from the former to the latter, the reverse was the fact, the affection of the vagina being primary, that of the uterus secondary.

THE MOVEMENTS OF THE STOMACH.

ROSSBACH, of Jena, has been making some experiments, with a view to a better understanding of the movements of the stomach, derangements of which he believes to be at the bottom of many digestive troubles. The experiments were made upon dogs under the influence of profound morphia narcosis, and the results presented to the recent Congress für innere Medicine at Wiesbaden, and published in the *Deutsche med. Wochenschrift* for April 30th.

He has ascertained that as soon as the stomach is filled with food the peristaltic movements begin, at first feebly, increase gradually, and continue from four to eight hours. They occur only in the parts adjacent to the pylorus. The empty stomach is either entirely without motion, or exhibits only occasional and very feeble movements. The pylorus is closed during the entire period of digestion, and the emptying of the stomach begins suddenly when gastric digestion is, for the most part, accomplished. The duodenum is quite at rest during the entire period of gastric digestion.

SOCIETY PROCEEDINGS.

AMERICAN NEUROLOGICAL ASSOCIATION.

Eleventh Annual Meeting, held in the Hall of the Academy of Medicine, New York, June 17, 18, and 19, 1885.

(Specially reported for THE MEDICAL NEWS.)

WEDNESDAY, JUNE 17TH.—FIRST DAY.

AFTERNOON SESSION.

BUT a slight attendance of members was present when the meeting was called to order at 3.10 P.M. by the retiring President, DR. ISAAC OTT, of Easton, Pa. Dr. Ott made a brief address, alluding to the rapid strides made by neurological science, and the increase of knowledge concerning the physiology of the nervous system. If he might be permitted to allude to a subject upon which he had done some work, he would refer to

THE RELATION BETWEEN THE NERVOUS SYSTEM AND THE TEMPERATURE OF THE BODY.

The researches of various observers lead to the conclusion that the body temperature is controlled by the nervous system. The location of the centres is a subject of interest not only to physiologists, but to practitioners. Tscheschichin believed that a moderating centre existed in the brain. Eulenberg discovered a centre at the *sulcus cruciatus* which can cause a great rise in temperature, though he has lately attributed this action to a vaso-motor disturbance. In 1884 Dr. Ott had published a paper showing that centres having a relation to heat are located near the *corpora striata*. Within recent months he has attempted to map out these centres more definitely, and he finds them at the anterior inner part of the *optic thalami*. They must act either by increasing the production or diminishing the dissipation of heat. From his experiments, briefly described, Dr. Ott showed that there was an increased production, that the increment of heat was not due to vaso-motor deflections, and that the cerebral cortex was not the seat of the action.

Dr. Ott then introduced the Vice-President, DR. LEONARD WEBER, of New York, who took the Chair.

In accordance with the recommendations of the Council, Dr. Mason was elected as an

ASSOCIATE MEMBER,

his resignation as an active member being accepted.

Dr. Philip Zenner, of Cincinnati, and Dr. M. Allen Starr, of New York, were elected

ACTIVE MEMBERS.

A letter was read from THE PRESIDENT, DR. BURT G. WILDER, of Ithaca, announcing his inability to be present at the first day's session, and nominating DR. MILLS, of Philadelphia, as President for 1886.

The following nominations were made for

OFFICERS FOR 1886:

President.—Dr. Charles K. Mills, of Philadelphia.

Vice-President.—Dr. V. P. Gibney, of New York.

Secretary and Treasurer.—Dr. R. W. Amidon, of New York.

Councillors.—Drs. George W. Jacoby and E. C. Seguin, of New York.

The nominees were unanimously elected.

A proposed amendment to the Constitution, changing the

DATE OF MEETING

to the first week of May, elicited considerable discussion, and its further consideration was postponed to the afternoon of the next day.

An amendment providing that all business not of a scientific nature should be transacted in executive session after the conclusion of the scientific work, was adopted.

In the absence of Dr. Mills, his paper on *The Brain of a Delusional Monomaniac who Killed Several Per-*

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sons, was read by title, and ordered to be published in the *Transactions*.

DR. A. D. ROCKWELL, of New York, reported

A CASE OF CHRONIC MYELITIS; RECOVERY.

He said that recovery from chronic myelitis supervening upon acute myelitis presenting marked symptoms, was so rare that a case purporting to be of this nature should be thoroughly sifted. He read the history of a case seen in consultation with Dr. Farrington. The patient was a girl of sixteen years, and the symptoms developed on her return from an excursion to the seashore, during which she had felt very much depressed, and for a great part of the day had sat upon a rock near the water, possibly becoming wetted and chilled. She suffered great pain, the lower limbs were completely paralyzed, and there was incontinence of urine and of feces. After six weeks a severe and intractable bedsore developed over the last lumbar vertebræ. In the early days of the attack she was restless and sleepless, morphine only aggravating the distress. After two weeks of persistent insomnia natural sleep returned. For these two weeks she was nourished with milk and champagne, as the stomach rejected all other food.

Dr. Rockwell saw her about three months from the beginning of the disease, after the acute symptoms had subsided. Electro-muscular contractility in the lower limbs was completely abolished. There was diminished electro-cutaneous sensibility, and sensation to contact was perverted. The sphincters were completely paralyzed. A highly unfavorable prognosis was given, but the father demanded that an effort should be made to improve his child's condition. The faradic current had been used previous to Dr. Rockwell's connection with the case, but of course without result. He applied the galvanic current to the spine and to the paralyzed muscles, using 30 Volts, and making the applications every other day. At first the only evidence of good was the healing of the bedsore. At the end of the fourth week, faint muscular contractions were noted, and after two weeks these had increased sufficiently to permit accurate determination of the reactions, which were the characteristic reactions of degeneration. Anodal closing contraction was greater than cathodal closing contraction. Rapid interruptions of the galvanic current failed to elicit any response. After two months electrical reaction was normal, the bedsore healed, and the paralysis of the sphincters was overcome. At the end of the fourth month the only trouble remaining was weakness of the flexors of the right leg.

At first this was a case of acute myelitis, afterwards, whatever the exact conditions of inflammation, proliferation of connective tissue, etc., there was evidently a tendency to degeneration and softening. The whole transverse area was involved.

Pathologically the value of the case is negative rather than affirmative; the damage had not progressed beyond reparation. Therapeutically it encourages us to persist in treatment. Four physicians, including the reader of the paper had pronounced the case hopeless, but the father insisted on every effort possible being made to secure recovery. In this connection Dr. Rockwell alluded to a case of infantile paralysis in which some years ago he had given the same unfavorable prognosis, but the mother clung to the faint shadow of a hope, until after four months' treatment approximate recovery ensued.

Dr. Rockwell then exhibited the patient whose history formed the topic of his paper.

DR. E. C. SEGUIN had been much interested in the paper. He was, however, not satisfied that this had been a case of transverse myelitis. It appeared rather to have been an anterior polio-myelitis, extending perhaps into the gray matter. It reminded him of several cases he had seen, in which the symptoms of anterior polio-myelitis were blurred by sphincter-paralysis, and diminution of sensibility. He understood that there had never been absolute anæsthesia as would have been the case in transverse myelitis. Hence, he did not consider that this case modified the unfavorable prognosis of transverse myelitis, a true case of which he had never seen recover. He had seen a case with symptoms almost as severe as this, in which recovery ensued after three or four years. There were pain, atrophy of the extremities, with partial paralysis of the sphincters. While the electrical applications undoubtedly assisted recovery in Dr. Rockwell's case, we must not forget that the time over which they extended was sufficient to permit spontaneous recovery.

DR. STARR inquired whether galvanism had been the sole treatment? Had there been applied a continuous current to the cord or an interrupted current to the muscles?

DR. BIRDSALL asked for a more explicit statement of the distribution of the paresis; and inquired as to the limitation of the sensory symptoms, and the facts concerning the skin reflexes and tendon reflexes. These are important points in diagnosis. There are conditions in which central transverse myelitis may occur with slight involvement of the lateral columns, and the sensory tracts of the posterior columns. From the symptoms stated, this does not appear to be a case of transverse myelitis, as there is no decided evidence of involvement of the lateral columns.

DR. ROCKWELL replied that no other treatment had been employed, that the current had been continuously applied to the spine, but in addition sharp and strong interruptions had been resorted to, in order to reawaken irritability by mechanical action. Applications were also made to the muscles. He had seen a great many cases of anterior polio-myelitis, and considered this typically transverse myelitis, except that there was not complete anæsthesia. All groups of muscles were affected alike. There was absolute loss of contractility in every muscle and every fibre. The sensory disturbances were slight and confined to the extremities. The patellar reflex was abolished in the beginning, but had now returned. In regard to ankle clonus, there was great agitation of the foot when strongly flexed.

DR. GIBNEY asked whether it is possible for the ankle clonus to persist when the patellar reflex is abolished?

DR. LANDON CARTER GRAY, of Brooklyn, said that it depends very much on what you call chronic myelitis whether or not recovery is to be regarded as remarkable; whether or not a case is to be pronounced hopeless on account of the symptoms remaining long after the period for spontaneous recovery appears to have passed. We do not know much of spinal pathology after all. We can diagnosticate anterior polio-myelitis,

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or lesion of the columns of Burdach (locomotor ataxia), or of the lateral pyramidal columns. But researches of various observers show us that there are other columns with probably as distinct sets of symptoms, though their semeiology has not yet been elaborated. When we speak of myelitis we mean only that the disease does not involve one of the three known tracts, and may thus include, under one name, half a dozen distinct lesions, making it impossible to fix a limit to the period of spontaneous recovery. Dr. Gray had seen many cases last a long while, and finally recover; one case after a year. A case of lesion of the anterior horns had been quiescent for years. He gave an unfavorable prognosis and ordered faradism more as a placebo, to keep the patient coming to his clinic for purposes of demonstration, than in the hope of producing any good result. To his surprise, an improvement took place, that might be roughly characterized at fifty per centum. Thus, recovery is not so rare as Dr. Rockwell's experience would appear to have made him believe.

DR. ROCKWELL, in closing the discussion, said that the exact pathology of this interesting case cannot be decided. There appears to be a direct connection between the therapeutic measures and the recovery. It seemed impossible to him that after so many months of apparently progressive disease, spontaneous recovery could take place. More can be accomplished by persistent effort in cases of chronic myelitis and of infantile paralysis than has been the generally received opinion.

On motion of DR. AMIDON, Dr. M. A. Starr was invited to read his inaugural thesis.

DR. M. ALLEN STARR, of New York, exhibited specimens and read a description of

SOME RECENT METHODS OF STAINING NERVE TISSUES.

1. Weigert's hæmotoxylon method. This is the best for differentiating tissues. Sclerosed tissues do not take the stain, making it available for class demonstrations.

2. Weigert's acid fuchsin. This possesses no advantage; a combination of this and the hæmatoxylon gives good results.

3. Seguin's modification of the aniline blue stain. This is simple, and easily carried out, while inferior to Weigert's, as not permitting differentiation of the nucleus from the body of the cell; it stains sclerotic tissues prominently.

4. Sahli's method with methyl blue and acid fuchsin. Sahli claimed that it was possible to differentiate sensory and motor fibres by their different colorations, but to Dr. Starr this appeared to be an accident of time. Sahli had also described (5) a single stain with methyl blue.

6. Adamkiewicz's saffronine stain. Dr. Starr's results had been unsatisfactory. This method by selective action of the medullated structures renders it possible to map out certain regions in the fœtal brain, and had led to important discoveries.

Dr. Seguin explained the reasons that had led to the adoption of the method associated with his name. It permitted large transections to be handled and left over night in the stain. The ganglion cells and their processes come out well under the microscope, but its principal advantage was for demonstrations of gray and white matter, which are clearly differentiated. The reactions with pathological tissues are very satisfactory.

EVENING SESSION.

DR. GEORGE W. JACOBY, of New York, read a paper on

THE USE OF OSMIC ACID IN PERIPHERAL NEURALGIA.

The treatment of neuralgia by injection of a solution of perosmic acid in the neighborhood of the affected nerve was introduced by Neuber in 1883. He reported two cases, one of sciatica and one of trigeminal neuralgia, both cured after ten and twenty injections respectively. Eulenburg reports and tabulates twelve cases; of which three were cured, four more or less improved, five unaffected. The same observer records seven additional cases, of which four were cured. Reference was also made to the observations of Wölffler and Mercies. Dr. Jacoby made use of osmium tetroxide, OsO_4, known in this country as osmic acid. Perosmic acid, as it is called in foreign reports, is probably the same drug. He employs a one per cent. solution, of which one-half gramme to one gramme (5 mgr. to 1 cgr. of the drug) is injected into the connective tissue around the affected nerve as near as possible to the seat of pain. If the solution be exposed to the light for any length of time it becomes decomposed and discolored. Eulenberg says the discolored preparation may be still used, but in the reader's experience it is inactive. The solution should be recently prepared and dispensed in a colored vial; a small quantity only being prescribed at a time. Following the injection a severe stinging pain is felt, which lasts but a few seconds. Occasionally there are swelling and puffiness over the seat of puncture. In many cases a hard swelling lasted several days. There is no discoloration except where the needle enters the skin. The experiments of Franklin show the action of osmic acid thus used upon the living animal. There is an inflammation of the connective tissue and muscular structure immediately surrounding the nerve, and the nerve itself is blackened, osmic acid having the same action upon living nerve tissues as upon histological preparations. Dr. Jacoby reported eighteen cases, three of them in detail. Eight cases were cured, two improved, and eight unaffected. Of the eight cures five were cases of sciatica, all old ones. Of the eight unaffected, three were fresh cases and two were old. In one case of cervico-brachial neuralgia, treated with gratifying success, so far as the relief from pain was concerned, by injections over the musculo-spiral nerve, radial paralysis suddenly ensued. While it is true that an element of doubt existed, Dr. Jacoby attributed this to the injections. Arnozan calls attention to neuritis following injections of ether. In some of Franklin's experiments complete motor and sensory paralysis occurred in the domain of the nerves subjected to the treatment. Summing his experience, sciatica seemed the most amenable to this plan of treatment, and old cases afforded a better chance than fresh ones, contrary to the experience of Eulenberg. The pain following injection was almost unbearable in one case. This was opposed to the experience of European observers, who noted the absence of pain. Dr. Jacoby concluded:

1. That in osmic acid we have an agent serviceable in some cases of peripheral neuralgia.

2. That it is not an antineuralgic, and that its action is localized.

3. That it frequently fails where other agents succeed.

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4. That it is dangerous to implicate a motor nerve in the injection.

On invitation, DR. SACHS, of New York, who had been in Berlin during the progress of Eulenberg's experiments, said that the latter's experience had been only partially satisfactory. He had gained the impression that the treatment is unreliable in most cases. The only good results he had seen were in old cases, principally of sciatica. In Berlin no pain followed the injections. In New York they were very painful. This might be due to the difference in the preparation employed. The injection of osmic acid is worth a trial in obstinate neuralgias after other methods have failed.

DR. SEGUIN said that he had not used osmic acid, but had had some experience in other methods coming under the same general plan of treatment, namely, that of deep-seated irritation by hypodermatic injections. This method was first published by Louton in 1864. Louton used various agents, principally recommending silver nitrate. Dr. Seguin treated one case in 1865, and in one in 1873 or 1874 by Louton's method, both successfully. In both abscesses occurred, one being very troublesome. Some years ago he published an account of some cases of malarial neuralgias treated by deep injections of quinine. There may have been some antimalarial virtue in the drug employed, but he believed the local irritation the principal factor in the result. Quite a variety of substances may be employed, and possibly less irritating agents may give good results. Numbness and paralysis may ensue from deep injections over nerve trunks, as in the case related by Dr. Jacoby. Two cases of damage to sensation, were known to Dr. Seguin, one occurring in his own practice and one in that of a friend. Both were trigeminal neuralgia, and were treated by deep injections of chloroform, as recommended by Bartholow. The injection was made too near the infraorbital foramen and persistent anæsthesia of the upper lip resulted. He had never seen motor impairment, but no doubt it could occur.

DR. JACOBY, in reply, said that he did not believe that counter-irritation was the sole factor in the cure by osmic acid. Eulenberg claimed that the drug was unirritating. Some change in the nerve took place, as demonstrated by the discoloration. Abscess had not occurred in any of his cases, nor in those of others. He would not recommend the indiscriminate employment of osmic acid, but he thought it well to know of the method, and to resort to it in cases similar to those reported to have been benefited.

DR. SEGUIN called the attention of members to the fact that Ranvier has successfully used osmic acid on living animals to demonstrate nerve filaments and fat cells.

DR. STARR exhibited some large sections stained by Weigert's method.

THURSDAY, JUNE 11TH.—SECOND DAY.

AFTERNOON SESSION.

THE PRESIDENT, DR. B. G. WILDER, of Ithaca, occupied the Chair.

DR. V. B. GIBNEY, of New York, reported

TWO CASES OF SPINA BIFIDA, CURED, ONE FOLLOWED BY HYDROCEPHALUS.

Excision of the sac is limited to a small number of cases. In ninety-five per cent. the sac contains portion of the cord and some portion of the spinal nerves as well. The method he recommended was aspiration followed by the injection of iodo-glycerine, also called Morton's fluid, which consists of potassium iodide half a drachm, iodine ten grains, glycerine one ounce. Both of his cases were successful. In one which died subsequently of hydrocephalus, the autopsy showed obliteration of the tumor. In the other, death occurred subsequently from cholera infantum, and he was unable to obtain an autopsy.

DR. L. C. GRAY, of Brooklyn, read a paper on

THE USE OF STRYCHNINE IN NERVOUS DISEASES.

Dr. Jewell in 1880 recommended the use of large doses of strychnine, in some cases up to one-tenth of a grain, in the treatment of myelitis. Dr. Gray referred to the uncertainty of diagnosis and ignorance of pathology in any affection of the spinal cord, outside of the three known lesions, of anterior polio-myelitis, disease of the columns of Burdach (locomotor ataxia), or of the lateral pyramidal columns. Other equally well-defined columns exist, with probably equally distinct symptoms. Dr. Jewell had overlooked these distinctions. Dr. Gray had made trial of strychnine for several years, though he had always been afraid to use the large doses advocated by Dr. Jewell. In two acute cases it was so badly borne, that he had not used it again in acute cases. In two subacute cases there had been sudden onset of alarming symptoms, in one apparently from cumulative effects, and for three days the case had continued to be a cause of great trouble and anxiety. In some more chronic forms of disease he had had greater success.

A case of general myelitis of traumatic origin had been treated at first with ergot and galvanism, afterwards with belladonna without result. Strychnine was given in doses of gr. $\frac{1}{50}$, increased to $\frac{1}{40}$, three times a day, galvanism being continued. The patient, who had paralysis of the lower limbs, soon walked with the aid of two canes, then with one cane, finally without a cane. Vesical paralysis also was overcome. Great improvement ensued in another case in which the paralytic symptoms followed miscarriage. In five cases of progressive muscular atrophy strychnine was given in doses gradually increased to gr. $\frac{1}{25}$ three times a day. The drug had a remarkable stimulating effect, promoting the sense of well-being, so that the patient felt the need of it when it was discontinued. One case took $\frac{1}{80}$ gr. to $\frac{1}{2}$ gr. thrice daily for a year. They all felt much better, but there was no real improvement. Weir Mitchell recommends strychnine in cases of neurasthenia, when about to get up from bed after undergoing the rest-cure. Dr. Gray had seen good results in such cases. In summing up, while the cases had been too few for dogmatic assertions, he had found great benefit in functional disorders, great improvement in some chronic cases, slight improvement in others, in two acute and two subacute cases alarming results. He had never felt safe in exceeding one-twentieth of a grain, and usually began with one-fortieth. He had not been able to dispossess himself of a scepticism as to the benefit to be derived from toxic doses. The paper was presented merely as a memorandum.

DR. DANA, of New York, said that he had had some interesting experience with strychnine in functional

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nervous troubles. Three patients had taken very large doses. The case in which the drug had been best borne was one of depressing spinal irritation in a young man, compelled to abandon business by reason of physical and mental disability. Beginning with one-fifteenth of a grain thrice daily, the dose had been increased until one day over one grain had been taken in twenty-four hours. This produced slight effects, such as transient incoördination. This patient has now been taking over three-quarters of a grain in the twenty-four hours (four-fifteenths of a grain thrice daily) for more than four weeks, with great benefit. It is given in solution, and there is no doubt of the purity of the drug and the accuracy of the druggist. Two other patients are taking up to one-eighth of a grain and one-sixteenth grain, thrice daily, respectively. He finds these doses well borne in many cases, and has never seen cumulative or explosive effects. He finds that large doses of strychnine quickly relieve the pain and weariness in the back and neck, which is so early a symptom of nervous exhaustion; give tone to the sexual system; and are often efficient in the relief of insomnia where bromides and other sedatives have failed.

THE PRESIDENT, as a non-practitioner, would like to be enlightened as to the cause of the great difference in results obtained by two careful practitioners.

DR. SEGUIN did not see that our knowledge of the proper dosage of strychnine had been much advanced by the discussion. He had been taught, years ago, by Brown-Séquard that in functional nervous diseases large doses of strychnine were well borne. He has repeatedly given $\frac{1}{15}$ grain thrice daily; and after the first week or two does not hesitate to push it. Here he entirely agreed with Dr. Dana. In reference to the plan of Dr. Jewell, he agreed with Dr. Gray that it is risky and dangerous, especially in cases of uncertain diagnosis. He had suggested at the time of the discussion in 1880, that the absence of tetanic symptoms in Dr. Jewell's cases might be explained by the fact that there was no motor gray matter left. In transverse and central myelitis, strychnine is ill-supported, even in moderate doses. In chronic cases he has never dared to give heroic doses; he has used moderate doses, with not over-satisfactory results. He thinks the best means to avoid error is by giving the drug hypodermatically, and closely watching its effects. In a nervo-mimetic case, diagnosticated as locomotor ataxia by an eminent *confrère*, he had given $\frac{1}{15}$ grain thrice daily without toxic symptoms and with rapid improvement.

In reply to the President, Dr. Seguin said that he had never seen cumulative effects. He had been told of one case in a hysterical male subject, and he had to credit the alarming dyspnœa in that case to hysteria.

Dr. DANA suggested that the explosive effects in the case alluded to by Dr. Gray might be explained by the fact that in this case the Doctor had given the drug in pill form, while in the others it was administered in solution.

THE PRESIDENT, DR. BURT G. WILDER, of Ithaca, then delivered his *address* upon

PARONYMY VERSUS HETERONYMY AS NEURONYMIC PRINCIPLES.

The paper, which was quite lengthy and full of elaborate philological details, set forth the existing imperfections in neurological language, and advocated that plan of revision, which, with the minimum of disturbance of existing terms, might introduce accuracy and simplicity in the accepted terminology. He proposed to discard all vernacular names, and select the shorter classical technical ones; abbreviating some by dropping non-essential words, and others by substituting prefixes for adjectives, as medicommissura for commissura media. The great hindrance to anatomical study is the large number of existing terms. A recent collection of those of five languages gives more than 9000 names for less than 500 parts of the brain. The first principle of the new system is the use of mononyms instead of polynyms. It is then proposed to associate conventional or anatomical groups by the use of similar terms. indicating locality by prefixes such as *pre*, *post*, and *medi*. To obviate the objections fairly taken against an exclusively Latin terminology, the system of paronymy is applied—that is, instead of a more or less literal translation into the vernacular of a Latin or other technical term (heteronymy), an English dress is to be given the Latin or Latinic term, as commissure for commissura, peduncle for peduncula, etc. From the selection of the best technical terms, and their modification in this manner, while an English form is given to them they are still readily recognizable by scholars of all nationalities, and the objections against heteronymy, namely, ambiguity, length, literal inaccuracy, and lack of dignity, are obviated.

FRIDAY, JUNE 19TH.—THIRD DAY.

AFTERNOON SESSION.

DR. E. C. SPITZKA read a paper on

THE RELATIONS BETWEEN THE SYMPTOMS AND THE LESIONS OF POSTERIOR SPINAL SCLEROSIS.

An elaborate analysis of the symptoms associated with lesions of various portions of the cord, was presented and illustrated by microscopical sections. Dr. Spitzka was inclined to look upon many lesions as secondary, and the disease in many cases as local rather than systemic.

DR. SEGUIN, in response to an invitation from the President, remarked that nothing can be added to a paper that so admirably presents a comprehensive summary of our present knowledge. He had made some physiological observations, and he would like to ask Dr. Spitzka what bearing they had upon the question of the location of the initial lesion in spinal sclerosis. The point he had noticed was the insusceptibility of tabetic patients to the sensory disturbances of aconitine. Out of some nineteen patients there was but one who had experienced any tingling, and that patient took $\frac{6}{100}$th of a grain of aconitine in twenty-four hours, inducing serious symptoms of poisoning. The general systemic effects were very severe, but the tingling was absent, while in other patients it is usually the first effect noticed. He believes that this subjective tingling originates in the gray matter, and is referred to the periphery. It is said that aconitine acts on the peripheral nerve-endings. If that is the case, he does not understand how we can account for this absence of effect in tabetic patients, as we usually consider these sensations independent of conduction, as in the cases of subjective pain referred to amputated limbs. His

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observations are as yet incomplete, but he inclined to the belief that they indicate an early change in the gray matter.

DR. SPITZKA replied that one aspect of Dr. Seguin's observations puzzled him. He could not account for the absence of tingling in the face. Dr. Seguin's explanation of early lesion of the gray matter would hold good so far as concerned the affected extremities. He did not believe that a single drug of this class acted upon the periphery, but this question might easily be settled by an amplification of Dr. Seguin's experiments, that is, the administration of aconitine to patients with peripheral disease. He was of the opinion that the primary lesion is in the gray substance.

DR. B. G. WILDER called attention to

A SELDOM DESCRIBED ARTERY OF THE BRAIN,

A. termatica, which he said was always present. According to Gray and other anatomists, the two anterior cerebral arteries have a connecting link, the anterior communicating, whereas, according to Dr. Wilder, this is usually absent, the anterior cerebrals joining one another directly. It is from the point of juncture of these two vessels that the arteria termatica is given off. It is the only azygos artery in the brain. In regard to nomenclature, he proposed to substitute the names precerebral, medicerebral, and postcerebral for the anterior, middle, and posterior cerebral respectively.

DR. WHARTON SINKLER, of Philadelphia, contributed a paper on

TWO CASES OF FRIEDREICH'S DISEASE.

(See page 3.)

DR. SEGUIN has published five cases in *The Medical Record*. In this disease there is distinct paresis, and a tendency to contracture of the muscles of the leg. One of his cases has equinovarus, the tendo Achillis being strongly contracted. There is no anæsthesia and no pain, and yet there is degeneration of the whole of the posterior columns of the cord. As to the differential diagnosis, there is but little difficulty in distinguishing this disease from disseminated sclerosis. There is none of the peculiar tremor that belongs to the latter disease. It is distinguished from tabes dorsalis by the absence of pain and by the age, Friedreich's disease occurring in children. The ataxia of the lower limbs is very imperfect and not characteristic as in tabes. No treatment has any effect.

DR. AMIDON said that he had a case of this disease under treatment, the patient being a girl aged eleven years. She commenced to walk at eight months, had an attack of whooping cough followed by paraplegia. This disappeared at the end of three months. At the present time the patient is bright, not hysterical, and has no bad habits. She is of normal size. The skin is thick and bound down to the subcutaneous connective tissue. Her gait is ataxic; there are no ocular symptoms, and no pain. The reactions to electricity are normal; the patellar reflex is absent.

DR. STARR: Dr. Friedreich considered this disease due to a congenital deformity of the cord. There is no cerebral degeneration.

DR. G. W. JACOBY exhibited two new instruments: 1. An improved galvanometer. 2. A graphite instrument.

Much discussion followed as to their usefulness, resulting in the appointment of a committee to secure some absolute standard for the measurement of electricity.

EVENING SESSION.

DR. SPITZKA gave a demonstration of a *Brain Monstrosity*.

DR. SEGUIN read a paper entitled

A CONTRIBUTION TO THE PATHOLOGY OF THE CEREBELLUM.

The patient, an army officer, was first affected in 1867. He came under Dr. Seguin's treatment in 1877. The disease began with very severe headaches and one or more epileptiform or apoplectiform attacks. These were characterized by an impending loss of consciousness, but he never fell. He had no vertigo. In 1868 he consulted Dr. Agnew for failing sight. There was no diplopia. There were optic neurosis and partial atrophy.

After this the headache continued as the chief symptom. He had no return of the attacks and no symptoms in the legs. A seton was placed in the back of the neck, and in the course of a year (1868) the headache disappeared. In 1869–1870, the patient began to notice a gradual loss of power in the legs. There were no peripheral pains. From 1871 to 1874 the patient was in Europe. Legs and head were troublesome; no anæsthesia, no distinct paralysis; sight impaired but not getting worse. The patient had an appearance of hebetude. Returned to the United States in 1874 and since then has been in *statu quo*. Has lately had diplopia for distant objects; is pale and thin, but has had less headache. He has no ataxia, and walks with his feet apart. There was no vibration during rest. No marked change occurred until a few months before the fatal result, a few months ago. Then some difficulty with articulation and deglutition, stupor and death with cerebral and bulbar symptoms. Patient died comatose.

Post-mortem examination. The vertex of brain was pale and flabby. Base: Olfactory bulbs normal, optic nerve smaller and dull yellow. Carotids stiff, gaping, and the seat of marked arteritis. Other arteries at base in same condition, the basilar being the most diseased. No thrombi anywhere. Posterior aspect of cerebellum revealed a large cyst, two inches in diameter, occupying the sight of the vermiform process. Fourth ventricle was not diseased. Cyst lay mostly in the right hemisphere; it was monolocular and contained a clear fluid. The lateral ventricles were dilated. Spinal cord: The veins were much injected, varicose, and more numerous than normal. The cervical and dorsal enlargements were normal except a doubtful grayish appearance in the right postero-lateral columns. The cord seemed small for the size of the subject. The heart was hypertrophied and its walls much thickened. The aorta was atheromatous but not calcareous. The patient was of a peculiarly frank disposition, and there was absolutely *no history of syphilis*.

DR. AMIDON gave the history of a case of cerebellar tumor in a child of six. The mother had been the subject of sarcomatous glands of the neck, which had been removed by operation. One year after, the child, then five years of age, had an attack which resembled tubercular meningitis except that there were no convul-

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sions. There had been the regular prodromata of this disease. There were moderate ptosis and moderate strabismus. The child was under the influence of potassium bromide, but was tossing violently. Speech was almost abolished. The optic nerves were probably not much affected, as the child recognized his mother across the room. The patient remained free from fever. At the end of a week the diagnosis of tubercular meningitis was given up. The patient developed great muscular weakness, progressive stupor, incontinence, and finally died comatose. The head was rather hydrocephalic.

Post-mortem examination showed a sarcomatous tumor in the cerebellum involving the front ventricle.

After some general discussion the Association adjourned to meet next year at the same time, the place of meeting to be hereafter announced.

NEW YORK COUNTY MEDICAL ASSOCIATION.

Stated Meeting, June 15, 1885.

THE PRESIDENT, CHARLES A. LEALE, M.D., IN THE CHAIR.

DR. FRANK H. HAMILTON presented a paper entitled

A FEW PRACTICAL REMARKS ON RUPTURE OF THE PERINEUM.

It is unjust, he thought, to say that this accident can always, or even generally, be prevented by the skill of the accoucheur, since its occurrence is often due to conditions and circumstances over which he has no control. Having enumerated some of the causes which may determine this result which are wholly beyond the power of the accoucheur to remove, he referred to the advice given by various authorities in regard to the management of the perineum. As to the usual direction to "support the perineum," he stated that he would venture to say that the idea cannot be sustained by any sound mechanical theory or by experience.

If the purpose of making pressure upon the perineum, however, is to carry the head forward towards the pubes, the suggestion has a meaning, and can be understood; and he thought this is advisable whenever, from lack of curve in the sacrum and coccyx, or from any other cause, the vortex does not take this direction. Still, these examples are rare and exceptional. A lacerated perineum is sometimes caused, he continued, by the improper haste of the accoucheur, who seeks to expedite labor by the use of ergot or some other similar agent, or by unnecessarily resorting to the use of instruments. Some modern gynecologists do not think the danger of rupture of the perineum is increased by the use of the forceps, if only they be used skilfully; but he thought it certainly must increase the danger if the instruments are used unskilfully, and where, in the hands of even the most skilful, the instrument is retained in position until the head has entirely escaped from the vulva. Nor did it appear to him that the argument in their defence is conclusive, even when they are only employed to bring the head into the lower strait and then withdrawn. It is claimed, he said, that by this simple manœuvre the process of natural labor may often be greatly expedited; but this is the very thing which it is generally most desirable to avoid, so that, as Meigs says, the perineum may not be taken by surprise.

In this connection, Dr. Hamilton remarked that since the time when he commenced the practice of medicine, the question of instrumental labor has undergone a complete revolution. "I was a pupil of Dewees," he said, "and was taught that the forceps were seldom required; but to-day the teaching is altogether different, and there are now many gynecologists who count their instrumental labors by the thousands. A young man who was urging me to apply the forceps to his patient, but in which case the result proved that it was unnecessary, told me that a friend of his, a recent graduate of one of our city schools, and who was doing a large obstetrical practice in a neighboring town, assured him that that he never put a woman to bed without forceps. I do not hold this young man's teachers responsible for his practice, but the fact illustrates what is now the drift of professional opinion."

He next spoke in condemnation of the general use of anæsthetics in parturition at the present day, remarking that their effects are by no means in all cases limited to the alleviation or abolition of pain when employed in this class of cases. Not infrequently they increase the frequency and strength of the uterine contractions, and this is especially apt to happen when they are given in small quantities and in the first period of their exhibition; so that they may thus contribute to the production of a hernial rupture. In other cases under their influence he has seen the uterine contractions temporarily suspended, and long-continued inertia with resulting delay in the expulsion of the placenta and hemorrhage ensue. Dr. Hamilton concluded this portion of his subject in the following language: "While there can be no doubt that the forceps and anæsthetics have been of incalculable service to parturient women, I have a strong conviction that, since they have come into such common and almost universal use, they have done a great deal of harm. I believe the time is not distant in the future when it will become apparent to all that we have in these matters progressed too rapidly, and possibly that our progress has been altogether in the wrong direction."

Having referred to the various degrees of rupture of the perineum, he said that the concurrence of a deficient perineum and of prolapsus uteri does not always stand in the relation of cause and effect. The perineum in its most perfect condition does, and when the uterus occupies its normal position, gives no direct support to the latter, and the uterus may be made to descend from many causes, whether the perineum is sound or not, while if in its descent it has been brought into actual contact with the perineum, the presence of the latter is an important obstacle to its further protrusion. The absence of the perineum, when the vagina and uterus are in their normal condition, can only influence the descent of the uterus by first inducing atony of the muscular fibres of the vagina, with congestion and prolapse of the vaginal walls, by which not only the full and indirect support which the perineum gives to the uterus is removed, but the vaginal walls become actually a dead weight to drag the uterus downwards. These consequences to the vaginal walls and to the uterus, however, by no means always ensue upon the total destruction of the perineum.

Dr. Hamilton said he could not agree with some modern gynecologists that it is better in such cases to

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proceed at once to close the rent by sutures. The parts have suffered such a degree of stretching and contusion as to render the occurrence of inflammatory reaction, if not of sloughing, almost inevitable, while the lochial discharges will make it impossible to keep the parts clean. In addition, the operation itself inflicts a severe injury when the condition of the patient is already critical from other causes; and, finally, under judicious management, the rent frequently becomes partially and sufficiently closed spontaneously. If spontaneous closure of any portion of the rent takes place under these circumstances, it is probably not usually effected by the direct contact and immediate adhesion of the lacerated surfaces. The surgeon encounters sufficient difficulty in securing this result, even when, at a later day and under much more favorable circumstances, and after an extensive denudation of the surfaces, he attempts the closure by the aid of sutures. It is much more probable, he thinks, that the union occurs in these cases by the secondary process of granulation. The parts need not be unnecessarily or forcibly drawn asunder, but they may be carefully exposed to view each day, and made clean by gentle ablution; while the urine should be drawn by a flexible catheter as often as required. In further support of the opinion that an immediate operation is not in most cases, if any, advisable, he thought it should be explained more fully that, if it were possible to secure union by adhesion at this early period, the operation must be made within a few hours at most. Hewitt had expressed the opinion that the primary operation should be performed within one hour from birth; believing that it is of little use to insert sutures when the labor has been on some hours. "But," said Dr. Hamilton, "one may ask Mr. Hewitt what is to be done with that very considerable number of cases in which the expulsion of the placenta is delayed beyond an hour? Shall the rent be closed before it is expelled, at the risk of the sutures being torn by its subsequent passage? Or is the accoucheur again to interfere with the course of nature, and, with more or less violence, as may become necessary, remove the placenta without reference to the present general condition of the patient or of the uterine contractions?" Since it is proposed to make the operation under every surgical disadvantage, and when the patient, prostrated and trembling from the results of a severe labor, is in the worst possible condition, both mentally and physically, to endure the shock of an operation, or even its announcement, he believes that nothing but the most urgent imperative necessity can justify the operation under these circumstances, while this necessity has not been shown to exist. At this early period, also, it is often difficult for an expert even to form anything like a definite opinion as to the actual extent of the lesion. A rent, which at first seems to be an inch or two in length, on account of the distended condition of the perineum, will, after contraction a few hours later, be found to be not more than a quarter or half an inch.

He then passed on to speak of the secondary operation, and having referred in passing to the preparatory treatment, gave the details of the operation as follows: The patient being anæsthetized and placed in the usual position for lithotomy, while an assistant displaces the upper wall of the vagina with a Sims or Bozeman speculum, the surgeon will proceed with mouse-tooth forceps and scissors to divide the surfaces which are to be brought into contact. These surfaces should be extensive, rarely less than one inch in the antero-posterior direction; and they should extend inward along the vaginal wall nearly as far. The denudation must also be complete, the interposition of the smallest portion of the mucous membrane or integuments between the lips of the wound being sufficient partially or wholly to defeat the operation. All bleeding having ceased, three well-waxed sutures, of the largest size of harness-makers' silk, are to be introduced, the first being placed at the angle of the wound close to the sphincter. The needle, armed with a double ligature, must be inserted at a distance of from three-fourths of an inch to one inch from the margin of the wound, carried to a sufficient depth to include the entire surface which has been made raw, and brought out at a corresponding point upon the opposite side. Each suture will be introduced in the same manner. Sections of a large-sized flexible bougie, one inch longer than the fissure, are laid upon either side, and the double sutures drawn upon until the lips of the wound are brought together with moderate firmness, when the sutures are tied. In most cases, in order to secure accurate apposition of the margins of the wound, it is well to insert two or three very delicate superficial sutures. The knees of the patient should then be tied together lightly, and with a small pillow interposed between the knees.

Having spoken of the after-treatment, he said that in case the rent involves more or less of the recto-vaginal wall, the difficulties of the operation will be greatly increased, and it will be advisable always to paralyze the sphincter by two lateral incisions, extending backward and outward on each side, as first recommended by Baker Brown. He said, in conclusion, that he had made no reference to the use of the wire suture in this operation, because he preferred to employ the so-called "quilled" suture, because he did not find the wire so easy to introduce or to remove, while he had not found it to possess advantages in any other respect. If, however, the rent or loss of structure involved any considerable portion of the recto-vaginal septum, he would recommend, so far at least as the rectal fissure is concerned, the wire suture, either with or without Bozeman's clamp.

After the reading of his paper was completed, Dr. Hamilton made a few supplementary remarks. Dr. Fordyce Barker said that he employed chloroform for the purpose of preventing perineal rupture; explaining its agency in this connection in two ways. The first explanation was that it relaxes the muscular fibres of the sphincter vaginæ. Dr. Hamilton, however, regarded this as a physiological error, not to say absurdity. When the sphincter is distended to such an enormous degree as is the case when the head is pressing upon the perineum, it is impossible for any constitutional measure, such as the administration of chloroform, to have any effect in relaxing the tension. The second explanation was that the uterine action was somewhat suspended by the chloroform, and to that extent relieved the perineum. Dr. Hamilton said that this was satisfactory as far as it went; but when the head advanced, this influence would have no effect. On the whole, therefore, he regarded the use of chloroform as an unnatural interference with labor.

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As to the frequency of a perineal rent of a serious character, Meigs, in the fifth edition of his work, page 54, says: "I defy any one to show me from my own practice, a case of durable rent of the perineum." The expression *durable* Dr. Hamilton understood to refer to such a rupture of the perineum as would require surgical interference. It would not do to ignore this and say that Prof. Meigs was an old practitioner; for here was not a theoretical idea, but a *fact*. Yet he was a practitioner who very seldom employed instruments, and who, like his predecessor, Dewees, very seldom, if ever, resorted to anæsthetics.

Finally, Dr. Hamilton referred to a letter which had recently appeared in the *Medical Record*, describing the Vienna obstetrical service. In the Vienna Lying-in Hospital are confined every year about nine thousand patients, and yet the mortality is less than one-half of one per cent. "The entire absence of medicine," says the writer, "to hasten the labor when too slow, or relieve severe pains, or to induce them when wanting or feeble, is noticeable. Avoidance of every kind of interference in labor is carried to the greatest extreme. Even for forceps operation, or a version, unless extremely difficult, no anæsthetic is administered. Great care is taken also to prevent the least injury to the os uteri. The utmost respect is paid during labor to this part. It must dilate normally, and in its own time. Artificial dilatation is not permitted even with the finger, and all mechanical appliances for dilatation are 'inventions of the devil.'"

DR. AUSTIN FLINT read a paper on

PERSISTENT FLATNESS OVER THE LIVER AS PROOF THAT ACUTE DIFFUSE PERITONITIS IN NOT ASSOCIATED WITH INTESTINAL OR GASTRIC PERFORATION.

(See page 1.)

DR. CHARLES S. WARD read a paper on

INTUSSUSCEPTION OF THE INTESTINES, WITH THE REPORT OF A CASE.

The case was that of a child eight years of age, in which general peritonitis and excessive tympanitis supervened. The following was the course of treatment adopted: Large enemata of warm water, with the position of the body nearly reversed, repeated every three hours, and sometimes with a few drops of turpentine or of essence of peppermint in the water; one granule every hour containing one-tenth of a grain of calomel; about one-eighth of a grain of morphia every three hours, or, at all events, enough to relieve the pain and procure some rest; ice *ad libitum;* milk and beef-tea in small but frequent doses; hot water stupes constantly applied and frequently changed. Recovery ensued, but convalescence proceeded very slowly, and it was not until four weeks from the time of the attack that the child was able to sit up in bed and take sparingly of solid food. Pain and vomiting, followed by great prostration, were easily excited, and the greatest care had to be taken. During the latter part of the illness ipecac, with spiced syrup of rhubarb, was given three times a a day.

Having related a case in an infant eighteen months old, successfully treated without operation, as reported by Dr. Collier in the *Lancet*, Dr. Wood made some general remarks on the affection and its treatment. In regard to laparotomy, he said, after having briefly reviewed the literature of the subject: "I have thus presented a few of the many statistics scattered through our works and medical journals, for the purpose of showing how extremely uncertain in its results is the operation of laparotomy for the relief of this distressing malady, especially in children, who easily succumb from so serious an operation by shock at the time of its performance, or inflammation, which usually follows. The surgical interference in the case of adults, for impediments other than the one under consideration, gives better hopes of success, and should be adopted, as so eloquently advocated by the late lamented Sims, in a paper read before the Academy of Medicine a short time before his death, in which he urged the importance of the operation in all cases that were not promptly relieved by other means, owing to the great advantages we have at the present day, as compared with even a decade since, by virtue of the power of antiseptics carried out to its logical sequences.

THE PRESIDENT made some remarks on

A METHOD OF DIRECT LOCAL TREATMENT FOR DISEASES IN THE REGION OF THE ILEO-CÆCAL VALVE, AND ALSO FOR THE SAFE REMOVAL OF IMPACTIONS OF THE INTESTINES.

On many occasions during the past twenty years, he said, while observing the intense pain and great danger to life arising from accumulating flatus in the intestines in cases of idiopathic and traumatic peritonitis, obstructions at the ileo-cæcal valve, hypertrophy and retroversion of the uterus, causing obstruction at the rectum, also where there were tumors and the lodgement of foreign bodies, the contraction of adhesions, etc., he had longed for a means of giving exit to the imprisoned air. Fifteen years ago he resorted to colocentesis in these cases, by introducing a long capillary needle—twice the thickness of the usual hypodermic needle and six inches long—quickly through the walls of the abdomen into the inflated bowel. By this means the gas escaped, but it gave, as a rule, only temporary relief, and as the intestinal obstruction still remained reaccumulation of the flatus nearly always followed.

Dr. Leale then exhibited a long flexible rubber tube, which could be readily attached to an ordinary fountain syringe, and said that early in June he had been able to relieve by means of it a lady who was dying from the pressure upon the heart and lungs of a large accumulation of intestinal gas. There was an impaction of the intestines which was gradually removed by the injections. The tube passed fifty-nine and a half inches into the bowels, and he had reason to believe that its extremity actually went through the ileo-cæcal orifice. Before inserting the tube it was advisable to introduce a large rectal speculum, which would prevent a retroverted uterus or other obstruction from interfering with the passage of the tube. When it is desirable to apply a remedy, such as bismuth, for instance, to any part of the intestinal tract, it can be added to the water to be injected through the tube.

DR. H. M. BRIGGS presented some interesting pathological specimens. The first of these was

A HEART WITH ABUNDANT VEGETATIONS IN ALL FOUR OF ITS VALVES.

This, he said, is exceedingly rare, and he had never heard of another case. In the two hundred cases tabu-

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lated by Dr. Osler, in his recent Gulstonian lectures, there was no instance of this kind. The other specimen was a female bladder, containing a large calculus (apparently of oxalate of lime), and exhibiting old cystitis and trabecular hypertrophy. The ureters were dilated, and the kidneys were the seat of well-marked pyelonephritis and other disease.

DR. ISAAC E. TAYLOR spoke on the subject of Dr. Hamilton's paper, and said in commencing that the views expressed in it were to a large extent in consonance with his own. The whole subject of the management of the perineum, he thought, is one of great simplicity. His practice is not to touch the perineum, but to prevent its rupture by the judicious management of the head of the child whether in the cavity of the pelvis or emerging. The shoulders, he believed, are much more apt to produce laceration of the perineum than the head. The forceps are not as frequently the cause of rupture as Dr. Hamilton seemed to think; but, at all events, the manner in which they are used has a good deal to do with it. A great variety of methods have been proposed for the management of the perineum during parturition, but, as a rule, they are neither cleanly, philosophical, nor physiological. The correct plan is, he thought, to place the fingers entirely back of the perineum, on the part between the rectum and the coccyx. In this way direct pressure can be made upon the child's forehead, and the perineum saved by delivering the head between the pains. Placing the fingers in this situation also enables the accoucheur to prevent rupture of the perineum in occipito-posterior positions by changing them to face presentations. As he had remarked, great care should always be taken in the delivery of the shoulders on account of their liability to cause a rupture. In regard to the use of anæsthetics, he said that he always went to his obstetric cases provided with both chloroform and ether. He had long since noticed that in a certain proportion of cases, chloroform had the effect of putting a stop to uterine contractions, and in these instances he had found that ether almost always had a very happy effect in bringing on the pains again. If one of the anæsthetics did not answer, therefore, he would try the other, and its action generally proved satisfactory. Like Dr. Hamilton, he did not approve of the immediate operation in ruptured perineum; believing that, as a rule, it is much better to wait for three or four weeks after the birth of the child. It is a fact that the severe effects of labor not infrequently produce a paresis of the perineum which gives it an appearance closely resembling a laceration; but which in a few hours, or in some cases a longer period, entirely passes away.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, June 18, 1885.

THE PRESIDENT, A. JACOBI, M.D., IN THE CHAIR.

DR. H. W. MITCHELL read a paper entitled

OBSERVATIONS ON THE OPERATION FOR LACERATED PERINEUM, WITH DEMONSTRATIONS AND CASES.

His opening remarks were devoted to the anatomy of the part and to the effects of laceration, such as rectocele and cystocele, and that annoying dragging sensation so often complained of, which tends constantly to grow worse. Some have claimed a spontaneous cure of the lesion by tying the patient's legs together; but he had never seen any except a very partial union under these circumstances. When the parts are torn, the proper thing to do is to restore them to their original integrity; and this is possible by means of a simple operation which can be performed by any physician of ordinary skill. Having spoken of the preparatory treatment, he described the common operation of denuding the surfaces of the lacerated tissues and uniting them by means of deep silver wire sutures. Formerly he had been in the habit, according to the general custom among surgeons, of drawing the wires through by means of a silk loop; but more recently he had adopted the plan of threading the needle directly with the silver wire, and he considered this in every way preferable. He made it a point always to insert the finger into the rectum as a guide when passing the sutures. He thought it well to employ as few sutures as would answer the purpose desired. He employed a curved needle, and inserted and brought out the sutures through the skin at some little distance from the edges of the wound. Having secured the deep wire sutures by twisting them together with moderate tightness, he passed one or more superficial silk sutures to approximate the edges of the skin. The urine was drawn with a catheter before the patient left the table.

In five out of forty cases in which he had operated during the last fifteen months, he had used carbolized water as an antiseptic dressing, but in the other thirty-five he had employed no antiseptic whatever. He said that all the operations had been attended with complete success, and that union by first intention had resulted in every instance. The after-treatment consisted in keeping the parts scrupulously clean and the bowels confined for the first six days; the patient in the meanwhile living upon a light diet. On the sixth or seventh day the sutures were removed.

In case there was also a laceration of the cervix requiring treatment, he operated on that at the same time as the perineum, the cervical sutures being allowed to remain until the eighth or ninth day. When the sutures are removed, the patient is permitted to get up, and when she first does this it is sometimes found that there is a slight paresis of the lower extremities resulting from the want of action on the part of the muscles during the time that she was confined to bed. This usually lasts but a few hours, but in exceptional cases may remain for several days.

In all the forty cases it was the secondary operation that was performed, and in nearly one-half of the entire number there was laceration of the cervix, upon which he operated also. It is his practice to sew up the cervix with the patient in Sims's position, and then to turn her on her back for the perineal operation. In two of the cases the rupture of the perineum was associated with complete procidentia uteri; one of the patients being 76 years of age, and the other 65. In the case of the older of the two, before operating on the perineum, he amputated the whole neck of the uterus, according to the method of Dr. Isaac E. Taylor; and in both instances a perfect result was obtained. One of the other cases operated on was that of a lady six months pregnant, who insisted on having the operation per-

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formed on account of the great discomfort from which she suffered in consequence of the ruptured perineum; and when the ether was given her, the fœtus in utero was also anæsthetized, the effect of the drug remaining for several hours. This patient then went on to full time, and the new perineum stood the strain of the labor perfectly well. After narrating the forty cases seriatim, Dr. Mitchell announced a number of conclusions derived from his study of them. The most common cause of laceration of the perineum he found to be the incompetence and carelessness of midwives, who attend so many women of the lower classes in their confinements.

DR. ALFRED C. POST thought it wiser to keep the bowels open regularly after the operation. By doing this the patient is rendered more comfortable, and the functions of the body generally are more satisfactorily performed. He thought it decidedly objectionable to have an accumulation in the bowels, such as results from keeping them confined for six or seven days, and he believed it is now the practice of the best gynecologists to see that after the operation the bowels are opened every day. As to the operation which Dr. Mitchell had employed, it certainly seemed to have been very successful in his hands, but for himself he preferred the plan which he had described before the Academy a short time before, of simple incisions (without denuding the mucous membrane), and then bringing the parts together by means of two flaps, one looking upwards and the other down toward the perineum.

DR. MALCOLM MCLEAN said that he was surprised to hear the author of the paper say that he had discarded the silk loop and threaded his needle directly with the silver wire. He believed it much preferable to use the silk loop, and this procedure is almost universally adopted among gynecologists. At the present day the curved needle is decidedly antiquated. It is impossible to guide it with accuracy, and the short straight needle is used almost altogether in place of it. By elevating the parts it can always be inserted with perfect precision. Another point: where the sutures are inserted through skin as well as mucous membrane, a very serious amount of pain is almost invariably caused. Yet Dr. Mitchell had expressly stated in almost every instance in narrating his cases that the patient was free from pain after the operation; and he would like to know how he explained this.

DR. SIMON BARUCH said that he fully agreed with Dr. Post as to the advisability of keeping the bowels open. The old method of keeping them confined had now to a great extent been given up, and for this step in advance the profession was indebted to a gentleman of this city, Dr. Hanks. He also had the same objection to the curved needle that Dr. McLean had, viz., that it is impossible to guide it accurately. The author of the paper, however, certainly deserved credit for his attempt to simplify the operation as he had done, since it is highly desirable that every practitioner should feel himself capable of performing it whenever the occasion may arise. He was also glad to see that he condemned the doctrine that the perineum is in any source a support to the uterus. On this subject he believed that Emmet's views are entirely correct. As to having the sutures through the skin, he thought this must necessarily give rise to more or less pain. It was like the operation for hemorrhoids, before Allingham's method was adopted, when it was always requisite to use opium freely in the after-treatment. In Emmet's new operation all the sutures are within the line of the muco-cutaneous fold of the vulva, and it is followed by no pain whatever. While, however, Emmet's operation is, he believed, the best in many respects that has yet been devised, it is a difficult one to describe satisfactorily, and he feared, therefore, that it will not be as widely understood and become as popular as it deserves to be. In the operation employed by Dr. Mitchell very little of the rectocele seemed to be taken in, and while it is no doubt an excellent operation in comparatively recent cases, this, he thought, is a serious objection to it in many older ones. Still, the results in his hands, according to the reports which had been made, are certainly very creditable to him. As to discarding the use of the silk loop, he could see no satisfactory reasons for doing this.

DR. MITCHELL said, in reply, that with the plan which he had adopted, no inconvenience whatever is experienced from keeping the bowels confined. The night before operating he always orders some efficient laxative, and in the morning this is followed by an enema. As the food taken during the days succeeding the operation is always of a very light character, there is consequently little accumulation of fecal matter in the bowels. As to the reason why there was so little pain after his operations, he could not say, but such was the fact, and he thought it a mistake to suppose that the passage of the sutures through the integument necessarily gives rise to pain. In surgical procedures in other parts of the body, it is very common to pass sutures through the skin, and yet in many of them this is not followed by any special pain. In regard to the curved needle, he said that with the finger in the rectum he had found that its direction could be guided perfectly and without any difficulty, and he thought it decidedly preferable to the straight needle. There is no necessity whatever for lifting up the parts with the tenaculum. When the silk loop is used in connection with the wire suture, a larger needle is required, and altogether he thought this procedure complicated the operation and made it seem difficult. One great objection to Emmet's operation is, that it is not sufficiently simple, and his experience had shown that, by this simpler one, described in the paper, a torn perineum can be perfectly restored, which is the particular object in view.

DR. JOSEPH A. ANDREWS read a paper on

CONTAGIOUS CONJUNCTIVITIS: ITS CAUSE, PREVENTION, AND TREATMENT.

In the earlier part of it he gave the results of practical investigations made by himself in the report of a case of successful inoculation of the conjunctiva with a pure gonococcus culture of the seventh generation. It was not, however, in a healthy eye, the patient suffering from pannus and other trouble. Three weeks previously he had inoculated the conjunctiva of the same individual with a pure culture of a coccus found in healthy saliva, but with an entirely negative result. After the gonococcus inoculation, however, the eye presented a perfect picture of gonorrhœal conjunctivitis. Having given a *résumé* of the results obtained by other obser-

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vers in similar experiments, he went on to eak of oph ia neonatorum. While the infection is often received directly from the vagina of the mother at the time of birth, he believed that more frequently it is contracted somewhat later and through other channels. It has been ascertained that normal lochial discharge does not produce blenorrhœa. When a child is the subject of the disease, there is danger of its infecting the whole household, and it is necessary that great care should be observed to avoid this.

In speaking of granular conjunctivitis, he said that Sattler claimed to have produced this affection by inoculation; but in this he believed that he was probably mistaken. Personally, he had not been able to find cocci of any kind in over fifteen hundred cases in which he had made careful examinations. The secretion is apparently the carrier of the contagion; but it requires special conditions, such as are liable to result from overcrowding, improper diet, and bad hygienic surroundings generally, for its development.

As ophthalmia neonatorum is sometimes contracted directly from the vaginal secretions, it is advisable that the parts of the mother should be very thoroughly cleansed before the birth of the child. When there is reason to fear infection, the eyes of the infant should be washed with a saturated solution of boracic acid, and a two per cent. solution of nitrate of silver also applied. Credé's method of prophylactic instillation has been followed with excellent results. In addition to the two per cent. nitrate of silver solution he uses a solution of salicylic acid. Up to 1880, when he first began the practice, the disease attacked no less than ten per cent. of all the infants at the Leipsic Lying-in Hospital; but since this plan has been adopted there has been only about one case a year, out of from three to four hundred children born.

DR GARRIGUES for several months had had a two per cent. nitrate of silver solution applied to the eyes of all new-born infants in the Maternity Hospital on Blackwell's Island, and out of 351 children, had not a single case of the disease. He did not state in his report, however, whether any of the mothers were infected. In Dr. Mundé's service at the same institution, the two per cent. solution was used upon 80 children without a single case of the disease; while in Dr. Murray's service, in which a one per cent. solution of nitrate of silver was employed, ten or twelve out of fifty infants were attacked. It is claimed by Credé and others that the one per cent. solution is not sufficiently strong to prevent the affection.

Post-natal infection, as he had said, is, in his opinion, more common than infection at birth, and it is derived from the mother through the agency of sponges, towels, etc. In any case, therefore, when there is danger of infection it is best to keep the child entirely away from the mother except at the time of nursing. Ophthalmia neonatorum is a disease which prevails principally among the poorer classes, and he believed it the duty of physicians to warn dispensary patients and others of its danger, as they had the opportunity. In regard to the statistics of contagious ophthalmia in some of the asylums of New York, as presented by Dr. Daily, at the last meeting of the Academy, he thought that the percentage would have been still larger if he had included public school children in his figures.

The conclusion of the paper was devoted to the treatment of purulent conjunctivitis. The first thing to do is to wash away any infecting material, and the second to render the conjunctival surface as nearly as possible antiseptic. Injections should be used for several minutes at a time, after which a two or four per cent. solution of nitrate of silver should be applied. If the latter strength is employed, it is advisable to follow it with a solution of chloride of sodium to neutralize it. Boracic acid and vaseline make an excellent dressing, and iced cloths should be kept applied to the eyes. If there is much swelling of the eyes, the outer canthus should be cut. Dr. Andrews exhibited an eye speculum he had devised, which was made hollow, so that by attaching to it a fountain syringe irrigation could be practised in a very satisfactory way by means of it. A three per cent. solution of carbolic acid could be used in the case of adults. From four to twelve per cent. solutions of nitrate of silver may be required according to the urgency of the case.

CHICAGO MEDICAL SOCIETY.

Stated Meeting, June 1, 1885.

THE PRESIDENT, C. T. PARKES, M.D., IN THE CHAIR.

DR. E. FLETCHER INGALS read a paper on

HAY FEVER, ITS CAUSES AND CURE,

in which he said this disease had been the subject of investigation since it was discovered by Bostick, in 1819, but only recently has the profession arrived at satisfactory conclusions as to its etiology and treatment. The disease is met with commonly in southern England and the United States, rarely in Europe, and never among the natives of Asia and Africa. It is an aristocratic affection, being found more commonly among the residents of villages and cities, and the opulent, rather than farmers and the poor, notwithstanding the theory that it is caused by the pollen of grains.

Hay fever usually makes its appearance about the middle of August, and lasts until the first frosts of autumn. During an attack the mucous membrane covering the turbinated bones is greatly swollen, usually congested, the congestion often extending to the palate, fauces, pharynx, and conjunctiva. Microscopic examinations of the secretions have revealed numerous vibrios, which were formerly thought to be the cause of the affection, but it is more probable that their presence is accidental, as they may usually be found in the nasal secretions at other times. The pollen of plants acts as causes, not *per se*, but as exciting causes, being irritants to an exhausted nervous system. This nervous exhaustion renders the nasal nerves peculiarly susceptible to irritant substances. The theory of the nervous origin of hay fever has been generally accepted by the profession, although it has been only recently established that the tract involved is limited in the majority of cases to the lower turbinated bones and the lower and back part of the septum. In a considerable number of cases the sensitive areas are even more limited, though in some cases the middle turbinated bodies are involved. The sensitive areas are not uniform in different cases.

After referring to the symptoms and diagnosis of the affection the treatment was discussed. Weak solutions of quinine had been applied to the diseased regions, on

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the theory that this drug would destroy the minute organisms which were formerly supposed to be the cause of the affection. While this remedy had proven efficacious in some instances, it was found that weak solutions of soda, or other non-irritating drugs, had proven as efficacious. Many remedies have been vaunted as specifics in the treatment of this as in that of other intractable, self-limited diseases, and they have been found sadly wanting in curative properties.

Internal remedies that are of value are tonics and antispasmodics, and local remedies which sometimes give relief in the onset of the disease, are weak solutions of quinine, carbolic acid, tincture of opium, powders of morphia, bismuth, iodoform, etc., but they are not curative. For the asthmatic symptoms we can use the remedies appropriate to spasmodic asthma. However, it is only recently that we have found a method of treatment which promises to cure nine cases out of ten, and a remedy which promises to relieve the distressing symptoms in a fully developed case of hay fever. The latter is cocaine. Its action is such that it promises to be very valuable in the palliative treatment of the dis ease. A case of idiosyncratic catarrh, which closely resembles hay fever, came under Dr. Ingals's observation recently. A two per cent. mixture of cocaine and starch was blown into the nose as soon as the paroxysms came on. It gave immediate relief, and was repeated as the attacks recurred. About two weeks after another attack supervened, and the same treatment gave relief. Cocaine will doubtless prove to be a remedy of great palliative power in this affection.

Successful treatment by the galvanocautery, which was first thoroughly tried by Dr. Roe, had, previous to last May, been applied by Drs. Roe, Allen, and Sajous, to about thirty cases, about eighty per cent. of which were reported cured. As the disease is caused by a peculiar sensitiveness of the terminal branches of the sphenopalatine ganglion and nasal nerve, which are distributed over the septum and turbinated bodies, the treatment to be effectual must remedy this hyperæsthetic condition. The means adopted for accomplishing this purpose consist in applications of glacial acetic acid, carbolic acid, and other escharotics, and searing the membrane with the galvanocautery. The chemical agents often fail, but the galvanocautery, properly used, seldom fails. Successful treatment with the galvanocautery requires from ten to twenty sittings, and should be completed before the attack comes on. The method used is first to examine the nasal cavity with a slender, flat probe, by which the sensitive spots are located, and then the cold electrode is passed into the parts, and having reached the point to cauterize, the electricity is turned on whereby the wire is heated. It is applied for the fraction of a second to the diseased tissue, causing a small superficial burn. This operation is repeated at intervals until all sensitive spots have been relieved, care being taken not to burn too large a surface, else severe inflammatory action may ensue. When skilfully performed the operation causes little pain, and if cocaine is applied previously, no pain will follow. If no anæsthetic is used, the pain may be relieved by spraying the parts with Dobell's solution. In conclusion, nearly all cases may be cured by systematic, thorough, superficial cauterization with the galvanocautery of the hyperæsthetic portion of the nasal mucous membrane, providing the treatment is carried out between the attacks. Care must be taken to cauterize every sensitive spot, and not too much at once. The operation may be made painless by cocaine, and this drug may give relief during the attacks. General treatment must not be neglected.

Dr. Ingals then exhibited the battery which he uses, which is a large one of the ordinary pattern. He said it was necessary to have a good battery with a large amount of reserve force, so it can be used without the necessity of frequently agitating the fluid. The fluid must be often renewed.

DR. F. O. STOCKTON thought more prominence might have been given to the causal relation of hypertrophied turbinated tissue to hay fever. In all cases of hay fever he had met he had found hypertrophic nasal catarrh. If we treat hay fever, why not also treat the hypertrophic catarrh which is a causal factor in the disease? He always removes the hypertrophied tissue on this account. In all other points he agreed with the writer, especially in the use of cocaine. Since this drug came into use, he has used it in several cases which resembled hay fever with good results. It gave more relief than quinine, belladonna, or any other drug.

DR. ROBERT TILLEY protested against the use of the term hay fever when it is shown it does not depend on the pollen of hay exclusively as a cause. He thought a better term to be idiosyncratic coryza, as it is caused by a multiplicity of circumstances. That morning a patient had visited him in whom the symptoms were almost identical with hay fever, and if they had arisen at the proper season it would have been so diagnosticated. He is a grocer, and the attacks occur whenever he has to handle coffee. Dr. Tilley used cocaine in a four per cent. mixture with bismuth, and it gave immediate relief. He has often in cases of hay fever performed scarification of the inferior turbinated bones and mucous membrane of the septum with good results. He applies first a little cocaine, and very little bleeding follows. With reference to the locality of the sensitive areas in the nose, he thought that certain indefinable pathological conditions of the mucous membrane gave rise to the sensitiveness which may be found in any region where the mucous membrane is in a pathological condition.

DR. G. F. HAWLEY remarked that in passing the Eustachian catheter when it reached the posterior part of the turbinated body, it often produced a reflex cough even in healthy persons. He had one patient in whom asthmatic symptoms occurred the moment this region was touched, and after the removal of hypertrophied tissue by the Jarvis snare the asthma disappeared. Hay fever may be a neurosis or the result by reflex action of disease existing elsewhere. Mackenzie, of Baltimore, relates a case of a young woman who had ovarian disease and had attacks of hay fever during each menstrual period. On examination of the nose there was found a small piece of hypertrophied tissue at the posterior extremity of the inferior turbinated bone, not large enough to obstruct the naris or give rise to any troublesome symptoms of itself, yet when it was removed the hay asthma disappeared forever. It would be hard to define the relation between this tumor and the diseased ovaries which caused monthly attacks of hay asthma, but it seemed to exist.

DR. INGALS stated that he is of the opinion that a

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careful examination of every case of hay fever will disclose the presence of a sensitive area. In the case quoted in which the hay fever occurred during the menstrual periods, it was stated that there was a sensitive spot which when irritated gave rise to the asthmatic symptoms. After cauterization the mucous membrane heals in about ten days. A small spot the size of a dime or nickel should be cauterized and then allowed to heal perfectly before another cauterization.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, June 12, 1885.

VICE-PRESIDENT, EDW. H. TRENHOLME, M.D., IN THE CHAIR.

CANCER OF RECTUM WITH SECONDARY AFFECTION OF STOMACH.

DR. R. J. B. HOWARD exhibited the stomach and intestines of a patient who had recently died at the Montreal General Hospital. The history of the case is as follows: James W., aged 63, had for some time had pain referred to bladder, and was sent into the hospital under Dr. Fenwick, on suspicion of having stone in the bladder. In December, 1884, he began to suffer pain over pubes, slight and limited in area, increased on lying down. This pain increased steadily in intensity, and in April last patient gave up work on this account. At this time there was frequent micturition, both day and night, but urine presented nothing unusual. He now began to lose flesh rapidly. Some three weeks before admission he had some retching and on three occasions vomited. On admission into the hospital June 2, 1885, the above symptoms were present. It was found that the stream during micturition was sometimes arrested, and that the act was attended by pain. No stone was detected in the bladder, and as urine contained some pus, and his prostate was enlarged, he was put on treatment for cystitis. Nothing was discovered when examining prostate per rectum, except the enlargement of that gland. Two days later he had an alarming attack of collapse, and recovering from this, symptoms of pneumonia appeared, of which disease he died on June 9th. Before this a hard tumor was detected in the epigastrium, which was believed to be malignant disease of the pylorus, or possibly the liver. The man was much emaciated, and had a very cachectic appearance.

Necropsy.—Pnemonia of left lung and œdema. In abdomen all the glands in omentum were enlarged, some the size of a walnut, hard and firm. The gastro-colic omentum was puckered up and contained a large nodular mass. Ascending colon bent on itself, and held down by a large mass of new growth, which appeared to originate in the glands of the meso-colon. Sigmoid flexure turned up and fixed to transverse colon by another nodule of cancerous tissue, and lower down, opposite the third lumbar vertebra, adhered to a large mass formed between the layers of the mesentery. The abdominal viscera were removed *en masse*, and on further dissection an ulcerated surface the size of a man's palm, was found occupying the posterior aspect of the lesser curvature of the stomach, and its wall was slightly infiltrated; the pancreas was also involved in this growth. In several other places the walls of the bowel were the seat of similar new growths, usually attacking them from without, and starting from between the layers of the mesentery. All the mesenteric and retro-peritoneal glands were enlarged, firm, and evidently the seat of the same new growth. On the anterior wall of the rectum, corresponding to a mass the size of a bantam's egg, seated in wall of rectum and adherent to the bladder just above the prostate, was an ulcer the size of a ten-cent piece, having raised, rolled ridges, and a somewhat depressed base. The ulcer was about four inches from anus, and no enlarged glands were found below this. Veins of prostatic plexus filled with old clot. Arteries normal. Bladder, with exception of enlarged prostate, normal.

Dr. Howard remarked that this was another of those cases where there was extensive disease of stomach without symptoms. The original disease, without doubt, commenced in the rectum, and extended upwards to the stomach through the glands. He also said that it is most unusual for malignant disease of the rectum to spread so rapidly, and from so slight a local affection to become general carcinoma. The symptoms caused by moderate enlargement of the prostate were more prominent than those caused by the extensive malignant disease.

NEWS ITEMS.

CHICAGO.

(From our Special Correspondent.)

THE MEETING OF THE NEW COMMITTEE ON THE ORGANIZATION OF THE INTERNATIONAL MEDICAL CONGRESS.—The New Committee appointed by the American Medical Association, at its recent session at New Orleans, met at the Palmer House, Chicago, at noon on Wednesday, June 24th. There were present Drs. R. Beverly Cole, of California; J. V. Shoemaker, of Philadelphia; W. H. Wathen, of Louisville; John B. Hamilton, of the Marine-Hospital Service; George F. French, of Minneapolis; F. L. Sim, of Memphis; X. C. Scott, of Cleveland; Robert Battey, of Rome, Ga.; J. S. Billings, of Washington; E. F. Upham, of West Randolph, Vt.; I. Minis Hays, of Philadelphia; Ellsworth Eliot, of New York; E. P. Cook, of Mendota, Ill.; D. A. Linthicum, of Helena, Ark.; D. W. Stormont, of Topeka, Kan.: J. S. Lynch, of Baltimore; George A. Ketchum, of Mobile; A. Y. P. Garnett, of Washington; F. W. Beard, of Vincennes, Ind.; A. H. Wilson, of South Boston, Mass.; A. R. Smart, of Hudson, Mich.; N. F. Essig, of Plattsburg, Mo.; William Pierson, of Orange, N. J.; J. W. McLaughlin, of Austin, Texas; G. Baird, of Wheeling, West Va.; Nicholas Senn, of Milwaukee; and W. E. Duncan, of Ellendale, Dakota.

Dr. Cole, as temporary Chairman of the new committee, called the meeting to order, and, on motion, Dr. William Brodie, of Detroit, President of the American Medical Association, and Dr. N. S. Davis, editor of the *Association Journal*, were invited to join in the deliberations of the Committee.

The resignation of Dr. Austin Flint, of New York, as a member of the Committee, was presented and accepted, and Dr. J. W. S. Gouley, of New York, was elected to fill the vacancy, and he took his seat with the Committee.

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The Committee then proceeded to effect a permanent organization, and Dr. Cole of California, was elected Chairman, Dr. J. S. Lynch, of Baltimore, Vice-Chairman, and Dr. Shoemaker, of Philadelphia, Secretary.

Dr. X. C. Scott, of Cleveland, moved that the Chairman appoint a subcommittee of nine to prepare a revision of the rules and preliminary organization of the Ninth International Medical Congress, as published at Washington in 1885, and that this subcommittee report their revision to the Committee at its evening session on the 24th of June. Adopted.

The Chair appointed the subcommittee as follows: Dr. X. C. Scott, of Ohio; Dr. Wathen, of Kentucky; Dr. Billings, of U. S. A.; Dr. Shoemaker of Philadelphia; Dr. Hamilton, of U. S. Marine-Hospital Service; Dr. Upham, of West Randolph, Vermont; Dr. Gouley, of New York; Dr. McLaughlin, of Austin, Texas, and Dr. Linthicum, of Helena, Arkansas.

At the evening session the subcommittee asked for further time, which was granted, and the Committee adjourned to meet the next morning at 9 o'clock.

On Thursday morning Dr. X. C. Scott, presented the report of the subcommittee, which was adopted.

The principal change in the Rules was in that regarding membership. It was modified so as to read, "The American Members shall consist of delegates from the American Medical Association, and from Medical Societies in affiliation with the American Medical Association, each of said societies being entitled to one delegate for every ten members." This alteration reducing the membership of the Congress to the constituency of the American Medical Association, and excluding the large majority of the profession from admission to the Congress, was opposed by Dr. Billings, on behalf of the original committee, but without avail.

Rule 12, making presidents of the Sections *ex officio* members of the General Committee, was stricken out.

The organization of the Congress was then elected as follows:

Dr. Austin Flint was retained as *President*. Dr. Henry I. Bowditch, of Boston, was stricken from the list of *Vice-Presidents*, and there were added Drs. John L. Atlee, of Lancaster, Pa.; O. W. Holmes, of Boston; W. O. Baldwin, of Montgomery, Ala.; J. M. Toner, of Washington; Wm. Brodie, of Detroit; L. A. Sayre, of New York; W. W. Dawson, of Cincinnati; and H. H. Skillman, of Lexington, Ky.

Dr. John H. Packard, of Philadelphia, was elected *Secretary-General*, and Dr. F. S. Dennis, Chairman of the *Finance Committee*.

The Executive Committee was constituted as follows: Drs. Beverly Cole, of Cal., Chairman; J. V. Shoemaker, of Philadelphia; A. Y. P. Garnett, of Washington; J. H. Packard, of Philadelphia; F. S. Dennis, of New York; J. S. Lynch, of Baltimore; J. W. S. Gouley, of New York; William Pierson, of Orange, N. J.; Christopher Johnston, of Baltimore; and J. C. Tucker, of Alameda, Cal.

A *Local Committee of Arrangements* was also appointed, consisting of Dr. A. Y. P. Garnett, of Washington, Chairman, and all of the Washington members of the Committee and of the Councils of the Sections.

In the Section of *Medical Education, Legislation, and Registration*, Dr. S. E. Chaillé, of New Orleans, displaced Dr. H. P. Bowditch, of Boston, as President, and Drs. George Cupples, of Texas, and R. J. Dunglison, of Philadelphia, were substituted as Vice-Presidents or Drs. Chaillé and Stillé, of Philadelphia.

In the Section of *Anatomy* Dr. C. W. Kelly, of Louisville, and Dr. W. H. Pancoast, of Philadelphia, were added as Vice-Presidents.

In the Section of *Physiology* Dr. H. P. Bowditch, of Boston, was added as a Vice-President.

In the Section of *Medicine*, to which that of *Nervous and Mental Disease* was added, Drs. Alonzo Clark, of New York, S. Weir Mitchell, of Philadelphia, and P. G. Robinson, of St. Louis, were added as Vice-Presidents.

In the Section of *Surgery*, Dr. Moses Gunn, of Chicago, was added as a Vice-President.

The Sections of *Obstetrics* and *Gynecology* were united, and Dr. Battey, of Rome, Ga., made President, and Drs. T. A. Reamy, of Cincinnati, John Goodman, of Louisville, Thomas Opie, of Baltimore, and T. Gaillard Thomas, were added to, and Dr. Thomas Addis Emmet, of New York, was stricken from the list of Vice-Presidents.

In the Section of *Ophthalmology* Dr. E. Williams, of Cincinnati, was substituted for Dr. Henry D. Noyes, of New York, as President, and Dr. Noyes and Dr. E. L. Holmes, of Chicago, were made Vice-Presidents.

In the Section on *Otology*, Dr. C. H. Burnett, of Philadelphia, was stricken from the list of Vice-Presidents and placed on the Council, and Drs. A. M. Wilder, of San Francisco, and D. S. Reynolds, of Louisville, were made Vice-Presidents.

In the Section of *Dermatology and Syphilis*, Dr. J. M. Keller, of Hot Springs, Ark., was made Vice-President.

In the Section of *Laryngology*, Dr. Lefferts was displaced as President, and Dr. J. N. Mackenzie, of Baltimore, substituted, and Dr. M. F. Coomes, of Kentucky, was made a Vice-President.

In the Section of *Public and International Hygiene*, Dr. Ezra M. Hunt, of Trenton, N. J., was stricken from, and Drs. J. L. Cabell, of Virginia, A. L. Carroll, of New York, and J. N. McCormick, of Bowling Green, Ky., were added to, the list of Vice-Presidents.

In the Section of *Military and Naval Surgery and Medicine*, Drs. Donald MacLean, of Ann Arbor, P. A. Hooper, of Arkansas, and E. H. Gregory, of St. Louis, were made Vice-Presidents.

In the Section of *Practical and Experimental Therapeutics*, Dr. E. R. Squibb, of Brooklyn, was added as Vice-President.

In the Section of *Diseases of Children*, Dr. Abraham Jacobi, of New York, was stricken out as President, and Dr. J. Lewis Smith, of New York, substituted, and Dr. DeLaskie Miller, of Chicago, was added as a Vice-President.

Numerous changes and additions were also made in the Councils of the various Sections.

THE INTERNATIONAL MEDICAL CONGRESS AND THE MEDICAL PROFESSION OF PHILADELPHIA.—A meeting of the members of the medical profession of Philadelphia concerned in the organization of the International Medical Congress of 1887, was held at the Hall of the College of Physicians, on Monday, June 29th, Dr. Alfred Stillé in the Chair. Dr. David W. Yandell, of Louisville, was present by invitation.

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After hearing a report of the proceedings of the new Committee, at its meeting held in Chicago last week, and after considering the changes in the organization which were made, including the restriction of the scope of the membership by which a large proportion of the profession of the country would be excluded from the Congress, the following preamble and resolution were unanimously adopted:

Whereas, Certain serious changes have been recently effected in the preliminary organization and rules for the International Medical Congress of 1887, it has seemed desirable for the members of the General Committee and the officers of the Sections resident in Philadelphia to meet for consultation; and

Whereas, It has appeared that these changes are inconsistent with the original plan, and detrimental to the interests of the medical profession in America, and of the International Medical Congress; therefore, be it

Resolved, That we, the undersigned, consider that our duty to the profession and to ourselves requires us to decline to hold any office whatsoever in connection with the said Congress as now proposed to be organized:

D. Hayes Agnew,	S. Weir Mitchell,
Roberts Bartholow,	William F. Norris,
John H. Brinton,	William Osler,
Charles H. Burnett,	John H. Packard,
R. A. Cleemann,	Theophilus Parvin,
J. M. Da Costa,	William Pepper,
Louis A. Duhring,	Edward T. Reichert,
William H. Ford,	Albert H. Smith,
William Goodell,	Robert Meade Smith,
Samuel W. Gross,	Alfred Stillé,
Robert P. Harris,	George Strawbridge,
I. Minis Hays,	William Thomson,
William W. Keen,	James Tyson,
Joseph Leidy,	Horatio C. Wood,

David W. Yandell.

PROFESSIONAL OPINION ON THE INTERNATIONAL CONGRESS ORGANIZATION.—The second day of the meeting was ushered in by a somewhat verbose discussion regarding the action of the committee relative to the International Medical Congress. From our best information regarding the gentlemen who were instrumental in initiating this uncalled-for windstorm, we fancy the trouble originated from disappointment. They are sore-heads of the "rule or ruin" type. Some of these men have for years endeavored to supply the wind-power for the American Medical Association meetings. The International Medical Congress requires a more reliable power—a steadier power; hence these dress-parade sort of fellows were, of necessity to the welfare of the Congress, relegated to the rear.

In order to conceal the true character of the charges, they hid behind the New Code prejudices, charging that New Code men were put on the committees. However objectionable the New Code men may be, we hope they are governed by purer principles than men whom we know to be ostensibly sticklers for Old Code theories, but are practically no-code practitioners, except such as will give them personal aggrandizement.

We have carefully looked over the "rules and preliminary organization," and can see no reason to find fault with the action of the committee. We feel entirely satisfied that they have acted in the best interest of the American profession in general. Nearly all the States, the District of Columbia, and Canada, have been represented by the appointment of prominent and distinguished physicians on the committees and sections. New York, having the largest number of widely known men, is justly entitled to a larger number of representatives. A few States are left out, which can be the only tangible objection to the appointments. It must not be forgotten that the States so largely represented are those in which most of the medical teachers and authors reside, without whom, be they Old or New Code men, the American profession could not be represented in its best light, which, above everything of a technical nature, should be sought after.

Judging the whole matter from an unprejudiced standpoint—although some features may savor of suspicion—we think the committee acted in the best interests of the medical profession, and we are pretty certain that the auxiliary committee of thirty-five, appointed at the New Orleans meeting, will not undo any of the work of the original committee, but will lend their good counsel towards perfecting the work already begun, of making the Congress highly creditable to the medical profession of the United States. To this end we hope they will work in perfect peace and harmony.—*Kansas City Medical Record*, June, 1885.

The question of spelling Nation with a big N, came up at New Orleans, at the meeting of the American Medical Association, and appears to have been decided in the negative.

It seems that last year a committee was appointed to invite the International Medical Congress to hold its next meeting here. This committee was instructed, in case the invitation was accepted, "to act as an Executive Committee, *with full power* to fix the time and to *make all necessary and suitable arrangements* for the meeting of such Congress." The words which we have italicized would seem to indicate beyond a peradventure that the Association intended to give the Committee *carte blanche* in relation to the whole affair. The Committee was successful in getting the Congress, and accordingly proceeded to carry out its instructions, as given above, by appointing the officers of the different sections and the various necessary subcommittees. We received the list of appointees some time ago, and failed to find anything to criticise. We thought the names had been selected with great care, to secure men of, as far as possible, National, if not International, reputation.

But not so with all. The Committee had made no provision for the eloquent champion of the pap-chewing mothers of Texas; they had ignored the oleates; they had not tested all their appointees by the *shibboleth* of the Code; they had not given the "rural deestricts" their *numerical* ratio of the offices; whole States and Territories were entirely ignored; even Ohio had but fourteen, and of these her metropolis had all but one, while New York, Philadelphia, and Boston were liberally remembered. And so there was a kick. And so it was decided to increase the size of the Committee, and otherwise so arrange matters that the ranches of Texas, the prairies of Kansas, the mines of Colorado, and the forests and wheat fields of the great Northwest should all be "represented" among the officers of this Congress.

Verily, we trust the original Committee, and their rustic accessories, may duly exercise, the former pa-

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tience, the latter humility, and both moderation, to the end that the Congress may be a success; for unless they do this we greatly apprehend the "kick" will overturn "the fat into the fire."—*Columbus Medical Journal*, June, 1885.

We were as strongly opposed as any to the sectionalism which appeared in the appointments by the original Committee, but that this Committee were vested with all power to do just as it did, seems very clear under the resolution which created it. That being the case, the wisdom of the Association, to say nothing of its right, in nullifying the work already done in the way of organizing the Congress, does not seem clear. An authority on parliamentary law to whom we have submitted the whole question, declares that the Association has clearly committed an error in its meddling with the original committee. But whether it was justified or not in thus seeking to undo what was done in good faith, is a comparatively trivial matter. The great injury it has done the profession of this country, of which the American Medical Association is but a fraction, by making it appear in the eyes of our European brethren as a quarrelling, querulous agglomeration, will make any victory which the Association may gain over the original committee, too dearly bought. Whether the original committee will succumb remains to be seen. If it should not, the confusion will be worse confounded. —*Medical Age* (Detroit), June 25, 1885.

THE PLYMOUTH EPIDEMIC.—The regular monthly meeting of the American Society of Public Analysts was held at the rooms of the Health Department, Brooklyn, on June 22, 1885, the President, E. H. Bartley, M.D., in the chair.

Dr. Cyrus Edson, of the New York Health Department, who recently visited Plymouth with Dr. Taylor and Mr. Martin, as a Committee from the New York Board of Health, read a paper on the "Plymouth Epidemic of Typhoid Fever; its Origin and Results." The paper was illustrated with lantern views, from photographs taken by Mr. Martin, and these views gave a very accurate idea of the condition of affairs in the town.

Dr. Edson's paper, although written independently of the essays of Dr. L. H. Taylor, which have recently been printed in THE MEDICAL NEWS, endorses the opinions stated by the latter gentleman, which is, that the origin of the epidemic could be traced to the case of typhoid fever in the Davis family, living near the reservoir.

In the discussion which followed, and which was carried on by many prominent physicians and health officers, the unanimous opinion expressed was to the effect that the constant spread of the disease during the past month was due to carelessness. When the character and origin of the disease were known there was no excuse for the neglect of disinfection, especially of the discharges. It was found that the wells, which previously had not been polluted, would soon become contaminated with the excrement, which is often thrown into shallow privy-vaults. The prevalent opinion was that, if rigid sanitary laws were not enforced immediately, the epidemic would continue to spread.

Mr. E. W. Martin, chemist to the Board of Health of New York, presented a table of analyses of the reservoir water; that from the Susquehanna River taken at the intake to the pumps, and the water from one of the wells. It will be seen by the table that the reservoir water presents the least evidence of organic pollution; river water next; while the well water is shown to be grossly contaminated. Amounts are given in grains in U. S. gallon.

	Reservoir water.	Susquehanna water.	Well, Nottingham St.	Well, Welch Hill.
Chlorine	0.058	0 117	2 566	1.108
Nitrates	faint trace	trace	trace	none
Nitrogen in nitrites and nitrates	0 028	0.035	1.440	0.096
Free ammonia	0 0006	0.0035	0 0006	none
Albuminoid ammonia	0.0035	0.0111	0 0027	0 0006
Organic and volatile	0.058	1.458	5 540	2.216
Total solids	1.458	3.791	19 828	6.415

NOTES AND QUERIES.

DIAGNOSIS OF VAGINITIS.

To the Editor of THE MEDICAL NEWS.

SIR: In your issue of June 13, of the present year, it is stated that at a recent meeting of the Paris Obstetrical and Gynecological Society, Martineau stated a most important fact by which specific could be distinguished from simple vaginitis. "It depends upon this that in the specific form of the disease the pus is always acid, while in the simple it is alkaline." Since the mucus of the vagina is normally acid, would not this fact detract from the value of Martineau's statement? Respectfully,

F. A. BURRALL, M.D.

48 WEST SEVENTEENTH STREET, NEW YORK.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JUNE 16 TO JUNE 29, 1885.

PORTER, J. Y., *Captain and Assistant Surgeon.*—Having been found incapacitated for active service by an army retiring board, ordered to proceed to his home and report by letter to the Adjutant-General of the Army.—*S. O. 136, A. G. O.*, June 15, 1885.

HARTSUFF, ALBERT, *Major and Surgeon.*—Assigned to duty at Fort Hamilton, N. Y. H.—*S. O. 133, Department of the East*, June 24, 1885.

MIDDLETON, J. V. D., *Major and Surgeon.*—Granted one month's leave with permission to apply for fifteen days' extension, to take effect about 15th proximo.—*S. O. 88, Department of Missouri*, June 19, 1885.

BROWN, H. E, *Major and Surgeon.*—Assigned to duty as Post Surgeon, Fort Reno, Indian Territory.—*S. O. 91, Department of Missouri*, June 24, 1885.

TAYLOR, BLAIR D, *Captain and Assistant Surgeon.*—Ordered from Department of Texas to Department of the East.—*S. O. 141, A. G. O.*, June 20, 1885.

CARTER, WILLIAM F., *Captain and Assistant Surgeon.*—Ordered from Department of the East to Department of Texas.—*S. O. 141, A. G. O.*, June 20, 1885.

DAVIS, WILLIAM B., *Captain and Assistant Surgeon.*—Leave of absence extended three months.—*S. O. 142, A. G. O.*, June 23, 1885.

EBERT, R. G., *First Lieutenant and Assistant Surgeon.*—Granted leave of absence for one month, to take effect about July 5.—*S. O. 97, Department of Colorado*, June 17, 1885.

ROBERTSON, R. L., *First Lieutenant and Assistant Surgeon.*—Now on leave of absence, directed to report in person by July 7, 1885, to Commanding Officer at Columbus Barracks, Ohio, to accompany detachment of recruits to Department of Texas. On completion of this duty to rejoin his proper station.—*S. O. 143, A. G. O.*, June 24, 1885.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE-HOSPITAL SERVICE, FOR THE TWO WEEKS ENDING JUNE 27, 1885.

LONG, W. H., *Surgeon.*—Granted leave of absence for three days, June 18, 1885.

FESSENDEN, C. S. D., *Surgeon.*—Leave of absence extended seven days on account of sickness, June 24, 1885.

WHITE, J. H., *Assistant Surgeon.*—Granted leave of absence for twenty-one days, June 23, 1885.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLVII. SATURDAY, JULY 11, 1885. NO. 2.

ORIGINAL ARTICLES.

FOUR CASES OF EXTRAUTERINE PREGNANCY.[1]

BY MATTHEW D. MANN, A.M., M.D.,
PROFESSOR OF OBSTETRICS AND GYNECOLOGY IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF BUFFALO; FELLOW OF THE AMERICAN GYNECOLOGICAL SOCIETY.

UNTIL quite recent times extrauterine pregnancy has been considered a very rare and almost irremediable condition.

Parry, by collecting the histories of five hundred cases, first showed how comparatively common it is; but he showed more than that, for by carefully studying the natural history of the disease, if we may call it such, and by comparing this with its pathological anatomy, he pointed out when to suspect its existence, and how to diagnose it. As a natural result, came improved methods of treatment, which, if nôt altogether settled, have done much to make the management of at least a certain class of cases both safe and easy. As regards the treatment of other cases, more experience is needed before definite rules can be formulated.

Let me first place clearly before you the signs and symptoms which experience has shown to be connected with this condition, and on which we can rely in making a diagnosis. In doing this I quote from the writings of others, especially from Thomas, Garrigues, and Parry.

The accident of an extrauterine gestation is met with most commonly in women who have been long sterile, those with a history of previous uterine disease, and in widows and others illegitimately pregnant. As a rule, we have the ordinary symptoms of pregnancy, gastric, mammary, and others. In the diagnosis of the pregnant condition I would attach peculiar importance to the mammary signs, as being, in the majority of cases, among the most reliable, if the pregnancy has advanced far enough. Besides the symptoms of pregnancy we have, as Thomas says: 1. Irregular gushes of blood, sometimes accompanied by portions of membrane—or, as I have myself seen, a complete cast of the uterine decidua, much hypertrophied and thickened. These shreds can generally be distinguished by the aid of the microscope from the decidua of a non-pregnant uterus.

2. Pain, either a fixed, grinding pain in the iliac fossa, or sudden paroxysmal pains of the severest kind, and often accompanied by symptoms of shock, lasting a few hours, and recurring at irregular intervals. These forms of pain are well illustrated in the cases which I shall relate.

3. Symptoms of abortion, without any fœtus; quite rare.

4. In a small proportion of cases there are no premonitory symptoms. The first indication of anything wrong being shock-collapse, and sudden death from rupture of the sac and hemorrhage. Such a case was well illustrated in a report made to the Society a year or more ago by Dr. Clark.

The *physical signs* are commonly, 1. Increased size of the uterus, but not in proportion to the supposed stage of the pregnancy. This increase is held by some to be proportionate to the nearness of the sac to the uterus; in a tubal pregnancy the increase being greater than in the abdominal variety.

2. Evidence of the emptiness of the uterus by the passage of the sound or finger.

3. The presence on either side or behind the uterus of a cystic tumor, generally smooth in outline, somewhat tender and obscurely fluctuating. Ballottement is present in a small proportion of cases.

With these signs and symptoms clearly in mind, we should not find the diagnosis of the condition nearly as difficult as it was formerly thought to be.

I am far from wishing to make light of the difficulties, but I would like to see the profession outside of the specialists more generally recognize the possibility of arriving at a correct conclusion in a majority of such cases,—a conclusion which must give to the woman many more chances for her life.

That the dangers are great is generally recognized, and may be shown from Parry's figures, who found the ratio of mortality to be upwards of 67 per cent. But with the methods now at our command, provided there is an accurate and early diagnosis, these dangers can be almost certainly avoided. In this connection let me quote from Dr. Garrigues's admirable paper.[1] I think, he says: "It is not amiss to point out, if there are difficult cases, there are others in which the diagnosis is very easy, and that certain symptoms are so common in extrauterine pregnancy that they ought to arouse a strong suspicion of its existence, and call for the most careful examination and careful watching of the case. It is painful to read the (by no means rare) histories of cases in which no physical examination was made. The first time the patient is sent home with a prescription for an anodyne for her colic, the next time she is found dying, and the last act in the tragedy is the autopsy revealing a small ruptured fœtal cyst, with internal hemorrhage. It is no less painful to read of an autopsy revealing a cyst measuring from seven to nine inches in diameter, which had not been found, although a vaginal examination had been made."

If you ask for the points of difference between the varieties—tubal, ovarian, and abdominal—I can only say that such a diagnosis is impossible, so far as my limited experience goes. I am inclined to side with Lawson Tait, who believes that all ectopic gestations are in the tubes.

[1] Read before the Buffalo Medical and Surgical Society, March 3, 1885.

[1] Gyn. Trans., vol. 7.

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Before discussing the different plans of treatment, I will read to you the histories of four cases which have come under my observation, as they illustrate well both the natural history of the disease and the plans of treatment which are generally advocated, at least, in this country.

CASE I.—September 30, 1882, I was called to a neighboring town to see a patient, of whom I at that time learned the following history: She had been married twelve years, and had had four children. Her first labor was premature, and her last child was born eight years before. She had always enjoyed good health up to the time of her present illness; menstruation had been normal, bowels regular, and all the bodily functions carried on in a perfectly healthy way; was of good constitution. She had last menstruated twelve weeks before, or about the first of June. On the 29th of July, two months before I saw her, she ate a hearty dinner at 12 o'clock; at 1.30 she had a severe paroxysm of pain, so severe that she fainted—to use her own term—"at every relaxation." When consciousness returned she would vomit and purge; a new paroxysm of pain would follow, with fainting, and so on. This condition lasted all the afternoon. Towards evening the intervals between the pains were longer, and during the night the pains, though still severer at every recurrence, were not attended by the other symptoms.

The next day she suffered greatly from nausea ("perhaps caused by the morphine used"), and was unable to move herself in bed in the least because of the lameness in her back and soreness of the bowels. This attack was characterized by a very weak pulse, and all the other symptoms of shock. There was very little elevation of temperature. The pain she defined as being exactly like childbirth pains, only in the bowels. After one terrible pain she declared that something had given way. The next day she was better, but there were great tenderness and soreness just above the symphysis pubis, and a little to the left; and her back felt as if it were "entirely broken in two," so that she could not sit up for five minutes on account of this feeling, when otherwise she would have been very comfortable. She gradually recovered, and was able to get up and move about the house. In two weeks there was another attack, somewhat less severe, but it left her very weak, and she was thenceforth confined to her bed.

She had several attacks at intervals of from six to fourteen days, varying in intensity; but, as she grew weaker, she was unable to recuperate between them. During this time she described, as a peculiarity of her condition, that she would have a natural, healthy appetite, when she felt able to eat anything. Again, for a week she would not be able to retain anything, not even water, on her stomach, and this without any visible change in her condition. She also suffered severely from sleeplessness and restlessness even when there was no pain, and she had never been at all a nervous woman. An examination during this interval—the exact time of which I cannot learn—revealed a tumor to the left of the uterus, rounded, firm, and somewhat tender. This gradually enlarged, and finally became visible above the symphysis. It grew steadily until the 20th of September, when she had a very severe attack of pain, accompanied by severe shock, so that her life was despaired of. The tumor at this time enlarged rapidly, and within a few hours became three or four times its former size. When I saw her the pain had subsided, but she was still very weak, with a feeble, rapid pulse.

There was a firm, circumscribed tumor in the left ovarian region, extending upwards, and nearly to the umbilicus. This was quite firm, though not hard, and did not convey any sense of fluctuation. The tumor could be felt, per vaginam, to the left and behind the uterus. A sound passed into this organ showed it to measure about three inches in length. It seemed to be thickened and somewhat enlarged, but not much softened. The breasts were not much enlarged, though the nipples were somewhat prominent, and the areola darkened; no fluid in them that I remember of. Without much hesitation, from the history and from the result of my examination, I diagnosed the case to be one of extrauterine pregnancy. My idea was that the attacks of pain from which she had suffered had been those usual in extrauterine pregnancy, the cause of which has not yet been satisfactorily explained, and that the last attack had been accompanied by rupture of the cyst. This rupture being probably subperitoneal, and the blood being thus enclosed, the hemorrhage had ceased.

I gave a favorable prognosis, thinking that the child was dead, and that the effused blood would be gradually absorbed, and recovery take place. In order to make sure of the death of the child, I advised that a current of electricity should be passed through the swelling every day for a week. This treatment was carried out, and the prognosis fully justified.

About October 1st there was a slight, bloody discharge from the uterus, the first since June 1st. Four weeks after this she menstruated regularly.

For the first two weeks of her convalescence there was a considerable discharge of whitish mucus from the rectum, not offensive in odor. Her recovery was perfect; though to this present time there is a hard bunch situated above the pelvis, as large, she thinks, as an egg. This she says is somewhat tender and sore around it. She is able to walk two or three miles, and can endure physically as much as she ever could. The diagnosis in a case like this can of course never be fully established; but the physical condition, together with the history of the case, leave little doubt as to its true nature. If not an extrauterine gestation, what was it? Nothing else that I know of would have given these severe recurring attacks of pain with shock. There were also cessation of the menstruation, and enlargement of the uterus; also a gradually enlarging tumor to one side of the uterus. The first attack and the last, which are described as the worst, each occurred, it will be noticed, about the time of a menstrual epoch. One symptom was wanting—the discharge of the decidua—but this is not invariable. The uterus was somewhat enlarged.

The sudden enlargement of the tumor at the last attack can only be accounted for by a hemorrhage confined within some limiting membrane, and this could only have been the peritoneum.

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Supposing it to have been a tubal pregnancy, rupture of the tube may have taken place between the folds of the broad ligament, and the hemorrhage being thus enclosed within its walls a fatal result from bleeding was prevented. Tubal pregnancy, it is claimed, can go to term though early rupture is certainly the rule. If this be so, it is not too much to suppose that it can go to the fourth month, and as the tube is really thinnest when at the junction of the ligaments, rupture at that spot is not improbable.

CASE II.—This case was seen in consultation with Dr. Briggs, of this city, who has kindly furnished me with the notes.

He was called to see Mrs. R., widow, mother of child, on the 30th of April, 1883. "I found her suffering from more or less severe pain of colicky character, which she said had troubled her very much for some weeks. She stated that she thought she was about three months pregnant, her last menses having been about the first of February. During this time, she had had some irregular slight bloody discharge, and at one time thought there was something like a fleshy membrane in the flow. Her breasts have increased very much in size, and the areola and nipples had darkened. There was no nausea or vomiting, the same having been the case with her previous pregnancy.

"On the fourth of May she again called me (Dr. Briggs), and I found her suffering from very severe pain in the hypogastric region. It was allayed by opium suppositories, etc. During the whole of the following week she had more or less severe pain, and on the 11th, just one week from the previous attack, she had another, even more severe attack. From this time until the 19th she was visited daily; her pain being severe and nearly continuous. The character of the pregnancy being now suspected, Dr. Mann was asked to see the case, but without any intimation being given to him as to its possible character.

"The consultation was held May 19th. Dr. Mann, after a careful examination, emphatically confirmed my idea as to the nature of the difficulty. The examination of the patient at this time showed the breasts much enlarged, tender, and containing a little fluid; nipples protuberant and areola darkened. By bimanual palpation a round smooth tumor could be felt behind and on the left side of the uterus, a sense of obscure fluctuation was discernible but no results were obtained by ballottement. Uterus was pushed a little forward and to the left, and was somewhat enlarged, though not markedly so. The treatment recommended by Dr. Mann was the faradic current.

"On Monday, May 21st, the electric treatment was begun. One pole, the negative, was placed in the vagina, and the other on the tumor on the outside of the abdomen. The current was gradually increased up to the limit of endurance and several times reversed. On the 22d, fœtal motion was distinctly felt by the patient during the treatment. On the 23d this motion, which had been felt at previous examination, had disappeared. On the 26th soreness was gone and pain on direct pressure over the tumor was very much less. On the 28th soreness and pain on pressure were all gone and the patient was dressed and remained up and about her room all day for the first time in weeks. At this time the tumor had diminished very perceptibly in size, and the breasts had become shrunken and flabby. These changes having begun after the first application of the current. On the 2d of June the current was used for the thirteenth and last time. The tumor could now be felt only with great difficulty externally; while an examination per vaginam showed it to be very much smaller and closely attached to the left horn of the uterus. Through the rectum it could be easily mapped out and its relations to the uterus distinctly recognized. The patient now declared herself free from pain and said she felt as well as she ever did. On the 16th she left the city for a western State."

This case, through the courtesy of Dr. Briggs, I saw twice, once before treatment, and once after. When I first saw her, the tumor was as large as a medium sized orange, the last time it was as small as a small hen's egg. From the relations which the tumor held to the uterus at the final examination, I am inclined to consider this also a tubal or a tubo-ovarian pregnancy. That the diagnosis was correct scarce admits of doubt, it was as plain as anything could be. The natural history and the physical conditions were quite classical, and could be explained in no other way. That the treatment was the direct cause of the happy result seems to me to be equally certain.

CASE III.—In September, 1884, Dr. E.V. Stoddard, of Rochester, N. Y., asked my opinion as to the value of electricity in the early stages of extrauterine pregnancy. He stated that he had a case under observation, and was considering the question of treatment. I urged very strongly the advantages of electricity over any other plan, and he promised to use it and report the result. This he has kindly done, and with his permission I add his case to my series. I was, unfortunately, prevented by the state of my health, from going to Rochester to examine her. It will be noticed that it is in many respects a counterpart of my second case.

"Mrs. L., æt 27, general health good, first came under observation about September 20, 1884. She complained of severe attacks of pain in the lower abdomen, and a slight discharge of blood from the vagina, slight tenderness exists over the left ovarian region. Menstruation had been absent during the past two months, but previously was quite regular. Attacks of pain in the uterine region began about three weeks before coming under observation and have been steadily increasing in severity.

"A vaginal examination reveals the uterus apparently normal in size but pushed over to the right side of the pelvis, Occupying the site of the left broad ligament appears an ill-defined tumor as large as a small orange, not firm to the touch, and extending backwards into the pelvis. By bimanual examination the tumor can be very readily recognized, and is clearly the enlarged left Fallopian tube. The patient had never been pregnant. The last coitus occurred early in July, the last menstruation having occurred June 23d.

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"A careful consideration of the case led to a diagnosis of tubal pregnancy. This opinion was shared by two medical friends with whom the case was seen in consultation. So severe and frequent were the attacks of pain becoming, and slight discharge of blood so constant, that it was feared that rupture of the sac might occur at any time. All preparations were made to do laparotomy at any moment if necessary, but as a previous expedient it was determined to try electricity. By means of an electrode passed into the vagina and carried up to the junction of the enlarged Fallopian tube with the uterus, and a sponge electrode placed externally over the ovary, a rapidly interrupted current from five cells, with a long coil of fine copper wire, was passed through the tumor and continued for ten minutes.

"During the succeeding two days no attack of pain occurred, and the slight hemorrhage also ceased. Two days after the first application, the electricity was repeated, and a third time after an interval of two days from the first application all symptoms ceased. Menstruation came on naturally, the last of October, no pain or unusual symptoms occurring. An examination after this period showed the tumor much reduced in size. Menstruation recurred in four weeks and was normal. The tumor was then found very greatly reduced in size, the only trace being thickening of the Fallopian tube. The pregnancy was evidently terminated by the blighting of the ovum by the first application of the interrupted current."

CASE IV.—This case I saw in consultation with Dr. Deihl, of this city: it differs entirely in its history and results from the other cases. Dr. Diehl has kindly furnished me with the earlier portion of the history.

"Mrs. H., æt 42, one child 18 years of age, no miscarriage. I was first called to see her October 7, on account of excessive bleeding, supposed to be caused by the shock of a serious illness of her husband. This was checked by ergot after two days. I next saw her January 4, 1884, on account of retention of urine. I was obliged to use the catheter until the 12th. In March she was visited at various times, as she was suffering from severe pains in her limbs and bowels accompanied by vomiting. During all this time she menstruated irregularly.

"About April 1st, I saw her again and found a tumor in the left lower portion of the abdominal cavity, which I took to be a cancerous growth; made no vaginal examination as she was so very weak, and I feared hemorrhage. A short time after this I was satisfied I could detect fœtal movements in the tumor, and then considered it a case of extrauterine pregnancy."

About April 10th called Dr. Mann in consultation. He found the tumor extending nearly as high as the umbilicus and entirely to the left of the median line. He easily detected fœtal life and agreed in the diagnosis of extrauterine pregnancy, but as the woman insisted most strongly that she had carried her first child in the same situation, we were in doubt whether it might not be a pregnancy in the left horn of a uterus unicornus or bicornus. For this reason we did not explore the uterine cavity. The woman, then, we calculated, was about five months pregnant. From this time on, she seemed to feel well, having only occasional pain, and was visited about once a week.

On August 1st, Dr. Mann saw her again, as the end of pregnancy was so near that no harm would result if labor should come on, and as the nature of the case was so doubtful we determined to explore the uterine cavity. This we did with the finger and sound, and found it enlarged but empty and normal in development.

As this case was now to far gone to allow of any attempt to kill the child by electricity we determined to await the false labor which usually occurs in such cases, and the subsequent death of the child before operating; my reason for this will be stated later. In August, during my absence from town, Dr. Diehl reports that she had somthing like a labor, and when I saw her in September, there were no signs of fœtal life; we determined, however, to wait a little longer as she was doing moderately well and there seemed to be no pressing need of an operation. In the second week of Semptember, however, she seemed not quite as well and it was evident that the time for action was approaching; but as there were no urgent symptoms we put it off, thinking that the longer we could defer it the better would be her chances, that is, as long as she was doing moderately well. In this we were mistaken.

On the night of the 24th of September, while straining at stool she felt something give way. She had severe pains, and when Dr. Diehl saw her early in the morning she was in a state of collapse. He summoned me at once and I operated at 10 o'clock, A. M., September 25th, assisted by Drs. Diehl, Phelps, Rochester, Bartow, and a number of other gentlemen.

Before the operation the patient was entirely conscious and hopeful, but with a good deal of pain and tenderness in the abdomen, and a very small, weak, and rapid pulse. On getting through the abdominal walls I found the peritoneal cavity filled with a thin purulent fluid, which flowed out in great quantities. As soon as this had in a measure ceased, I opened the cavity freely and sponged out what remained, I then found the fœtal cord extending from a rent in the tumor in front and to the right side. Rapidly enlarging the opening I removed the fœtus, thoroughly washed out the abdominal cavity and sac with hot boracic acid solution, and then stitched the edges of the sac to the abdominal wound. During the operation the patient grew rapidly worse and died just as it was completed.

A post-mortem examination was made the next day by Dr. Peterson, and the whole of the pelvic viscera together with the sac was removed and are now presented for your examination. You see in front the uterus much enlarged, measuring five inches in length, and behind it and closely attached to it a large sac with thick walls (apparently muscular in structure, though no microscopic examination has been made), as large as the uterus at term; attached to the base of this sac is the placenta, this is divided into three separate portions or cotyledon, one much larger than the others. The sac is smooth on the outside and only attached to the in-

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testine at one point, viz., when it comes in contact with the rectum. Examining the uterus more closely, we see that the decidua is present and thicker than normal. The right Fallopian tube is also to be traced, but the left tube is wanting, and from the thickening of the tissues around the left horn of the uterus, we may certainly suppose that the left tube was the original seat of the impregnated ovum. That the sac is the enlarged and hypertrophied tube is perhaps not susceptible of proof, but appearances certainly point strongly in that direction.

Consideration of Treatment.—The treatment of extrauterine pregnancy must be adapted to the peculiar conditions and circumstances of each case. Unfortunately many of the cases are not seen, or even the existence of the complications suspected, until the alarming symptoms due to rupture of the cyst are developed. When this happens in a patient in whom ectopic gestation was not previously suspected, the difficulties which surround the case are very great. There is little time to think and consider, and to arrive at a carefully made diagnosis. But, if this can be accomplished, the brilliant results achieved by Mr. Lawson Tait in opening the abdomen—four successes out of five cases, must encourage us to follow his example. If the diagnosis is made before rupture takes place and in the first four months, the indications are very plainly to stop the growth of the fœtus by killing it, and thus trust to nature for its removal by absorption. The plans which have been proposed and adopted for accomplishing this result must all be laid aside in view of the safe and easy method offered in the use of a strong current of electricity. The satisfactory results which have followed its adoption in every case must convince even the most sceptical that its trial at least is certainly warranted. Without making any attempt to collect all the reported cases treated in this way I will only mention, besides the three here related, those of Allen, 1; Landis, 3; McBurney, 1; Billington, 1; Reeve, 1: Lusk, 1; B. Emmett, 2; Thomas, 9; Garrigues, 1; Wilson, 1; Haines, 1; Mundé, 1; a total of 25.

There have been no fatal cases in which this treatment alone has been used. Braxton Hicks reported a fatal case, but he combined puncture, and the patient died of hemorrhage.

As to the character of the electricity to be used, both the galvanic, and interrupted and the faradic, have been used with success, but the latter seems to be the favorite. It should be as strong as the patient can bear, and kept up daily until some evidences are obtained that the child is dead.

As to the treatment of those cases which have passed the fourth month, and where the child is still living, opinions still differ. Shall the woman be allowed to go to term, or at least until the twenty-eighth week, when the child becomes viable, and then be operated on? Or shall the child be killed at once and left *in situ*, to be removed as soon as there is an indication? Or shall it be left to die after the completion of the full term of gestation, and then removed?

Attempts to save the life of the child, by removing it after it becomes viable, have generally resulted disastrously to the mother, and almost equally so to the child. Parry reported twenty cases of operation with the child living, with eight children and six mothers saved; but, as Lusk shows, five of these successful cases should be stricken out altogether. Litzmann furnishes nine other cases, all fatal but one; to these we must add one case by Lawson Tait, and one by Netzel, both fatal to the mother. Thus out of twenty-six cases there is only one certain recovery of the mother, and but a small percentage of children saved. Evidently this is not very encouraging. The reason for the bad results is to be found in the difficulty in managing the placenta. Nature's apparatus for stopping up the sinuses, a contracting womb, is wanting. If any attempt be made to disturb the placenta uncontrollable hemorrhage will follow, and this occurs often as well if the placenta is left intact during its elimination. With the death of the fœtus the sinus becomes obliterated, and this danger is removed; so that, when the operation is deferred until the child is dead, the results, as might be expected, are much better. For instance, Litzmann has collected thirty-three cases of operations after the child was dead with only sixteen deaths, or more than 50 per cent. of recoveries.

It was with these figures in my mind that I advocated delay in Dr. Diehl's case. Whether there is not a better way than this remains to be seen. Dr. Garrigues has proposed that the child be killed as soon as the diagnosis is made, no matter what the stage of pregnancy, and the same idea occurred to me after this case and before reading that part of his paper. That it could be done, I have no doubt.[1] I have killed a kitten several months old, by the current from an ordinary faradic battery, in a very few minutes, and I have no doubt a seven or eight months fœtus could be killed in the same way. That the life of the child is not worth considering I have already shown. If we try to save it, the life of the mother will be almost certainly sacrificed and the chances of saving the child are very small.

If we let pregnancy go on and await the death of the fœtus from natural causes we certainly expose the woman to many risks, rupture of the sac may happen at any time and has been observed a number of times at the spurious labor which commonly occurs. Even with the death of the fœtus at term the dangers are not over, suppuration of the cyst and rupture are still to be apprehended and absorption is very little to be expected. In the fifth or sixth months, however, the dangers just mentioned are less and the chances of a favorable termination by natural means are much greater, and, as Garrigues says, "even if the worst should come to the worst and the fœtal sac suppurate, causing septicæmia, there would still be a fair chance of recovery by laparotomy, and at all events an infinitely better chance than by laparotomy performed during the lifetime of the fœtus. The chances will even be better than in those cases in which suppuration (and he might have added rupture) sets in after the

[1] The case of Drs. Duncan and Mason in St. Bartholomew's Hospital Reports 1883, must be thrown out as evidence. The exact time and cause of the death of the fœtus, were evidently unknown.

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end of gestation, for the smaller the fœtus and its envelopes the less trouble is to be anticipated."

The rule of treatment then which I would deduce, would be—if the fœtus is alive, destroy it at once by electricity, no matter at what stage the pregnancy be. If it is dead and in the earlier months, leave it alone until some clear indications for operation show themselves. In the later months after its death wait four or five weeks and then remove it by laparotomy. The advisability of the latter recommendation might be questioned, but certainly the risks which a woman runs who carries in her abdomen a seven, eight, or nine months extrauterine fœtus are so great that a skilfully performed laparotomy is preferable. The absorption or encysting of a large fœtus, while it may occur, is so unlikely, and the danger of rupture or of septicæmia is so great, that it hardly seems justifiable to allow her to run such a risk. Perhaps my single experience leads me to take too decided a view, but I should directly prefer an early operation to putting it off too long. Unfortunately, we have nothing on which to base a rule as to the exact length of time that we should wait, and the necessary data are obviously very difficult to get.

More experience is necessary before deciding this point, but, as I have already said, my experience and the opinion I now hold would lead me to an early operation rather than to indefinite postponement and the expectant plan.

COCAINE IN THE AVULSION OF INGROWING TOENAILS.

BY F. PEYRE PORCHER, M.D.,
OF CHARLESTON, S. C.

A LADY came to me after undergoing very great suffering all winter from the ingrowing of both toenails. She had been incapacitated for taking exercise; there was loss of sleep, and her health was being undermined.

As it was a condition precedent that there was to be *no pain*, chloroform was promised if required, and I proceeded as follows:

A four per cent. solution of hydrochlorate of cocaine was instilled, drop by drop, from the point of a hypodermatic needle upon the slightly raw surfaces in the furrows on each side of the ingrowing nail of the big toe. A rag, wet with the same, was kept pressed against the upper surface of the toe, and three injections of this strength were made hypodermatically in the flesh at the base of the nail, just above the matrix. The tissues here being thin, and not very cellular in structure, probably ten to fifteen drops may have been received and absorbed.

After the lapse of fifteen minutes the narrow blade of a fine pointed pair of scissors was passed under the nail, which was divided to the matrix, when the two portions of nail were forcibly extracted with strong forceps, and any shreds of nail remaining at the roots were cleared out.

Having remarked that the operation was finished, the lady, who had not winced, expressed great surprise. After three days she was well enough, wearing a light slipper, to visit friends some miles in the country, and three days later returned to her home in one of the upper counties.

I had witnessed a similar operation performed by a gentleman in this city, which was successful.

MEDICAL PROGRESS.

CONCUSSION OF THE SPINAL CORD.—DRS. DUMÉNIL and PETEL, in a clinical and critical study of concussion of the spinal cord, arrived at the following conclusions:

1. The existence of concussions of the spinal cord may be maintained as an established fact.

2. It may be the origin of consecutive inflammatory lesions.

3. Such lesions may present the form of systematic myelitis.

4. Concussion may exist in a latent condition and be only revealed by secondary manifestations, varying from simple transitory congestion to incurable sclerosis. —*Archives de Neurologie*, May, 1885.

FIXATION OF A FLOATING KIDNEY.—PROFESSOR F. FRANZALINI, on May 4, 1885, operated upon a young woman for the fixation of a floating kidney. An exploratory abdominal incision was made, a tumor of the mesentery being suspected. The true nature of the tumor being thus disclosed, Professor Franzalini operated on the displaced kidney according to the method proposed by Rose, namely, by fixing it to the lumbar wall by two catgut sutures passing through both capsule and parenchyma of the organ. The exploratory incision united by first intention, and the woman recovered without an unfavorable symptom.

The two operations—laparotomy and fixation of the kidney—occupied only one hour and a half.—*Gazzetta Medica di Torino*, May 15 and 25, 1885.

TREATMENT OF NERVO-PULMONARY AND CARDIAC ASTHMA BY PYRIDINE.—M. GERMAIN SÉE, at a meeting of the Académie des Sciences, held June 2, 1885, summarized his treatment of nervo-pulmonary and cardiac asthma, as follows:

1. Whatever the form of the asthma, whether it be nervous, emphysematous, or catarrhal, or of gouty origin, the treatment by iodine constitutes the truly curative method. When iodism occurs the employment of pyridine will be found useful, and may be considered a certain means of curing the attack. This remedy is the best palliative, though iodine is the efficacious remedy, in the treatment of the disease.

2. Pyridine is superior in the effects produced to the hypodermatic injection of morphine; its action more permanent and less offensive.

3. In simple nervo-pulmonary asthma the attacks may be altogether suspended. In asthma complicated with serious pulmonary lesions, the treatment should exceed eight or ten days in order to obtain permanent amelioration.

In cardiac asthma, with or without renal and dropsical complications, pyridine is of great service in combating the continual or paroxysmal oppression which accompanies the disease.—*Gazette Hebdomadaire de Médecine et de Chirurgie*, June 5, 1885.

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PORRO'S OPERATION.—DR. FIBBI ANTONIO, on the 15th of April, 1885, performed Porro's operation successfully on a primipara. The patient was a woman aged 32 years, and the operation was not necessitated by the existence of any pelvic deformity, but on account of the presence of a large tumor which absolutely prevented the passage of the child. The patient had been in labor four days, and the water had broken three days previous to the operation, which was performed in a little more than one hour. The peduncle was treated by the extraperitoneal method. The patient survived one day only, and died in collapse.—*Gazzetta Medica di Torino*, May 15, 1885.

REMOVAL OF A FIBRO-ENCHONDROMA OF THE RIGHT TONSIL.—PROF. BOTTINI reports the removal of a fibro-enchondroma from the right tonsil. The patient, a woman, aged thirty-three years, during the last three years noticed a progressive enlargement of a growth upon the right tonsil. This at last attained such dimensions that it produced deafness and tinnitus in the right ear, and also seriously interfered with deglutition and respiration.

The patient had sought in vain to obtain relief, and finally came under the notice of Dr. Bottini, who diagnosticated the tumor as above, and undertook to relieve her by operation. The tumor was removed in fragments, partly with the bistoury and partly by the fingers, after an incision had been made in the right anterior palatine arch without serious hemorrhage, though the operator held himself in readiness to ligate the carotid artery in case of necessity. The patient was at once relieved of the symptoms referred to and recovered without interruption. Microscopic examination confirmed the diagnosis previously made.—*Gazzetta degli Ospitali*, No. 12, 1885.

EXPERIMENTAL STUDY UPON ENGRAFTED BONE.—DR. EDUARDO SALVIA, in the *Gazzetta degli Ospitali*, of May 13, 1885, gives the following *résumé* of his experiments upon the engrafting of bone:

1. The engrafting of a small fragment of bone between the two fragments of a long bone, in which a portion of the shaft is lost, is possible *even in individuals of different species*. This fact is demonstrated in an experiment in which one of a number of engrafted portions of bone contracted adhesions with the adjoining tissues and continued to live, notwithstanding the displacement to which it was subject on account of muscular action.

Their diminution could not be attributed to a tendency to disappear by gradual reabsorption, because if the great abundance of young cells in the osteoid tissue were insufficient to establish the evolutionary condition of the engrafted bone, the extended zone of cartilaginous tissue which surrounded the osseous nucleus, which united with it, and which on the periphery was in relation with a connective tissue rich in cells, excludes every doubt that the disappearance of the fragments of the engrafted bone was the effect of its gradual absorption, and that after some days it would entirely have disappeared.

2. It is not necessary that the portion of bone engrafted be supplied with periosteum; as likewise it is not absolutely required that the fragment be transplanted immediately after having been removed from the living body; because the vitality of the osseous tissue is preserved through several hours after it has been removed from the ordinary conditions of life (blood supply and innervation), and notwithstanding it is subject to the mechanical interference and to conditions little favorable to life.

3. The stage of evolution of the fragments of engrafted bone is preceded by a phase of involution, in which the osseous tissue loses its calcareous constituents, and returns to the state of osteoid tissue; and as such, after its organic relations with the surrounding tissues are well established, proliferates and develops, and then commences anew the deposit of the calcareous salts in the centre of its growth.

4. The growth and formation of the new bone take place by a process the same as is observed in the epiphysial cartilage of the long bones.

THE ABORTIVE TREATMENT OF TYPHOID FEVER WITH NAPHTHALIN.—L. GÖTZE, in *Zeitschr. für Klin. Med.*, 1885, No. 1, reports the use of naphthalin in a local epidemic of typhoid fever. Thirty-five cases in all were treated with the following results. With the exception of three cases treated with the drug, enlargement of the spleen was not noticed. The remedy was administered in doses of 15 grains, and 75, 90, and even 105 grains daily were received by the patients. Other remedies were substantially not administered.

The naphthalin employed was that directed by Rossback, the purest resublimated with the oil of bergamot. During the course of the disease all the patients received over 1050 grains, and many of them 2100 grains.

Untoward effects (with one exception, in which naphthalin intoxication was exhibited chiefly in the form of brain depression, which was readily relieved by soda sulphurata, were not observed.

The course of the disease, on the whole, was exceptionally favorable, and the intestinal symptoms—diarrhœa, pain in the cœcal region—was favorably influenced. In three cases the disease appeared to be generally shortened by the drug.

Other cases through its use became abortive in from six to ten days; in some others the fever did not continue more than sixteen days. In a final series of cases the process of the disease was not shortened, but the period during which marked elevation of temperature was maintained was curtailed. Three cases died from serious complications.

In cases in which antipyrin in apyretic doses failed to reduce the temperature, naphthalin produced such effect, as was proven by several trials always with the same result.—*Centralblatt für Klin. Med.*, May 30, 1885.

THE VITALITY OF THE CHOLERA BACILLUS AND THE MEANS FOR ITS DESTRUCTION.—The majority of physicians at the present time believing, as they do, that cholera owes its existence to some minute organism, and that of Koch being the one to which the probabilities most strongly point as the cause of the disease, it is important to know as much as possible of its life history.

Dr. Koch has himself shown that moisture is a prime necessity for the life of the germ, and that it soon

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perishes in its absence. By the use of well-known disinfectants he has been able to carry out an extensive series of cultures without producing the disease in any of them, with perhaps a single exception.

Drs. Nicati and Rietsch in their investigations have found that in some cases of cholera that the bacillus disappeared four days after the attack, and in the majority of cases they had disappeared on the sixth day; in two cases only were the bacilli found on the eleventh day. When cholera stools or portions of the intestine are placed in a warm, moist chamber, the disappearance of the cholera bacillus follows soon after the development of well-marked putrefaction. In moist earth the cholera bacillus retained its vitality from fourteen to sixteen days. These observers have never seen anything that looked like spores, nor have they been able to confirm the observations of Dr. Ferrán.

The cholera bacillus can be destroyed by many substances, as hydrochloric, nitric, and sulphuric acids, in the proportion of 1 to 2000 of water.

They suggest as one of the best means of insuring the destruction of the germs in drinking water, where boiling is undesirable, to add tartaric acid in the proportion of thirty grains to the quart, and after an interval of an hour to neutralize the acid by a corresponding quantity of bicarbonate of soda, which will make an effervescing drink. Drying the germs kills them rapidly. Simple exposure to dry, warm air for a few hours destroys their vitality. Heating the fluid in which they are contained to a temperature of 140° F. kills them as it does almost all bacteria, and simple boiling is, therefore, the most effectual means of disinfecting soiled clothing or bedding, or of insuring the harmlessness of drinking water.

The practical conclusions to be drawn from these experiments are numerous and important, if we admit the probability that the bacillus upon which Drs. Nicati and Rietsch experimented is the cause of cholera.

The danger of earth moistened with cholera excreta, or of water contaminated with them, is very evident, and the simplicity of the means of destroying the vitality of the germ—*i. e.*, by drying, boiling, or acids—is very satisfactory.—*The Sanitary Engineer*, June 25, 1885.

INOCULATION EXPERIMENTS IN CHOLERA.—MM. NICATI and RIETSCH conclude the detailed account of experimental inoculation with the fluids of cholera patients with the following remarks and conclusions:

We have undeniably obtained in our experimental inoculations symptoms and lesions similar to those of cholera. That is, after a period of incubation, which sometimes occupied three days, and which was sometimes accompanied by cyanosis, there were manifested prostration, algidity, spasmodic muscular contraction, and death, after some hours. Post-mortem examination showed an enteritis, epithelial and rich in rod bacteria, vacuity of the urinary bladder, and repletion of the gall-bladder.

The experimenters conclude, in reference to their inoculation experiments:

1. That the Indian pig is susceptible of inoculation, *per stomachum*, and more certainly by injection into the duodenal ampulla.

2. That the dog may be inoculated by injection into the biliary duct.

3. That the matter capable of producing inoculation is only such as contain the rod bacilli, whether it be the intestinal discharges or bile.

4. The blood of choleraic patients injected beneath the skin and into the veins rapidly produces the effects of a poison. In one instance of intravenous injection an animal was seen to die three days after the experiment. The question whether the blood may be a carrier of the infection is still held under consideration.—*Revue de Médecine*, July, 1885.

ABSCESS OF THE ABDOMINAL WALL CONTAINING THE RIB OF A RABBIT. CURE WITHOUT STERCORACEOUS FISTULA.—DR. JAGOT reports the case of a man aged forty-one years, who consulted him April, 1885, for an inflammatory swelling above the fold of the groin, situated transversely, and open at either extremity with a fungoid fistula. On the same side was an inguinal hernia, and at first sight the abscess seemed to be the result of improper support to this.

The patient related that two years previously he was suddenly, while working, seized with violent pain in the abdomen. Vomiting followed, and for several months he was confined to bed until the formation of the present abscess, which was opened by his attending physician. Since that time the abscess had never healed and was always painful when any unusual effort was made. Examination was made with a probe and a foreign body discovered, whose presence was further confirmed by the introduction of a channelled sound. Manual examination was then made and a body felt, firm in outline, long, and whose centre seemed to coincide with the superior and external fistula. Forceps were introduced at this point and a bone in two fragments was removed. It was slender and smooth and the ends very pointed, proving to be the rib of a rabbit, and was two and a half inches in length. The case is extremely interesting from the fact that after perforation, the bowel spontaneously healed without the formation of an intestinal fistula, nothing but pus having ever discharged from the abdominal opening.—*Le Progrès Médical*, June 13, 1885.

A SPECIES OF ARTIFICIAL ANÆSTHESIA WITHOUT SLEEP AND WITH PERFECT CONSERVATION OF INTELLIGENCE, OF VOLUNTARY MOVEMENT, OF SENSE, AND OF SENSIBILITY.—At a recent meeting of the Académie des Sciences, DR. BROWN-SÉQUARD confirmed the announcement made by him in 1882, of the possibility of producing anæsthesia by irritation of the mucous membrane of the larynx. By this means sensibility to pain more or less completely disappeared in all parts of the body. He then showed that this phenomenon is the result of the inhibitory influence of the superior laryngeal nerves upon the nerve centres, and that it is possible at will to limit the effect so produced, entirely, or nearly so, to one side of the body.

At the meeting referred to, results of new experiments were communicated, and the report confirmed that, by irritation of the laryngeal mucous membrane, sensibility to pain disappears through a number of hours, in man as in animals, while the intelligence, sense, and voluntary movements are in no wise interfered with.—*Gazette Hebdomadaire de Méd. et de Chirurgie*, June 5, 1885.

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SATURDAY, JULY 11, 1885.

THE MEDICAL CONGRESS MUDDLE.

THE *Journal of the American Medical Association* of last week contains a copy of an opinion by Hon. Samuel J. Randall, late Speaker of the House of Representatives, and a recognized authority on Parliamentary law, as to the power of the American Medical Association to set aside the action of the Original Committee of Organization of the International Medical Congress. It was in deference to this opinion that the Original Committee of eight decided that such of its members as could do so should meet with the new Committee organized by the Association at New Orleans, and present the reasons for the plan of organization which had been published.

In reference to this opinion of Mr. Randall, it may be well to bear in mind that there are many things which a parliamentary body may have the power to do which it is by no means right or proper that it should do. A State may have the power to repudiate its just debts, but the possession of such power is no excuse for exercising it. The American Medical Association may have the power to refuse to abide by the terms of the invitation which it had agreed should be given in the name of the medical profession of the country—it may have the power to repudiate the obligations which its duly authorized Committee publicly incurred, but such power will not excuse it for the unjust and discourteous action which it has taken.

There can be no question that the Committee of eight had full and specific authority to add to its membership, and that the original Committee thus enlarged was authorized to make all arrangements for the Congress, so far as the American Medical Association could give such authority. The International Medical Congress accepted the invitation with this understanding, and thereby practically accepted the original Committee of eight as its Committee of Organization.

The arrangements made by this Committee have been pronounced satisfactory by the leading members of the Executive Committee of the Congress in Europe. Under these circumstances it becomes the duty of the leading members of the profession in this country to signify their disapproval of the changes which have been made, and to refuse to become parties to offering such grave discourtesy to the Congress and to the prominent physicians of this country, who have been thus improperly, and in an offensive manner, set aside.

Already the profession of Philadelphia, Boston, and Baltimore, have declined to be a party to the work of the new Committee. In taking this grave stand they believe that they are acting not against the American Medical Association, but, on the contrary, that they are really stepping in and using their influence to protect it from the results of the damaging action of a small minority, who, for the advancement of their own ends, captured the New Orleans meeting —which was small in number, and not representative of the entire profession, and was easily manipulated— and turned aside the Association from its legitimate work, to array it not only against its own best interests, but also against the vast majority of the profession of America, which, by the action of its new Committee, have been excluded from the Congress.

The injection of the Code controversy into the organization is a flagrant discourtesy to the Congress, because one of its cardinal rules is not to have anything to do with matters relating to medical politics, and it was adroitly introduced at New Orleans as an attractive rallying cry with which to capture the Association. That the Code controversy has nothing to do with the Congress is clearly shown by the unanimous action of the profession in Philadelphia, where the old Code was originally framed, and by the fact that the names of its consistent and strongest supporters are to be found in the list of men who decline to coöperate with the new Committee. In taking this action, they felt that local differences must not be intruded upon an International Congress where they have no place.

A cardinal source of dissatisfaction with the new organization is that it is under the control of a handful of discontented men, who were not included in the preliminary organization, and who stirred up this trouble for what they could make out of it. They

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used the American Medical Association to this end, regardless of the injury thereby inflicted upon it, and now that they find that the profession has risen in its indignation and repudiates them, they are expressing a willingness to compromise and to make concessions to save their own official heads. But the profession is more than disgusted at the manner in which they have juggled themselves into office, and it realizes the discredit which their doings have brought upon it, and no change of front now can save them from just condemnation. They have committed a great wrong not only against the American Medical Association, but against the profession at large, and the action just taken means, in plain language, that the profession has no confidence in them, and will give no support to any organization of which they are the head.

SYPHILIS AS A CAUSE OF ABORTION AND OF PREMATURE LABOR.

IN a discussion, at the Paris Academy of Medicine, upon the diminution of increase of population in France, some very important statements were made by FOURNIER, which are reported in a recent number of the *Annales de Dermatologie et de Syphiligraphie.*

In the healthy wives of two hundred men who had been treated for syphilis, and in whom the disease had been apparently cured, but was really latent, there were four hundred and three pregnancies, two hundred and eighty-eight living children were born, and one hundred and fifteen dead. This shows that children of a syphilitic father and of a sound mother die in the proportion of one in four. But the pernicious influence is much greater when it comes from the mother, or from both parents. Thus a syphilitic woman married to a syphilitic or to a healthy man, is liable to repeated abortions—in one case eleven were observed, and then a syphilitic child was born. If syphilis be recent in a pregnant woman, her child is almost inevitably doomed to death; she miscarries, or is delivered either prematurely or at term, and the infant soon dies. Fournier states that in forty-four married women who were private patients, and who conceived while affected with recent syphilis—some of them received simultaneously from their husband both child and syphilis—forty-three dead children were born, and only one living one.

But in general the mortality is not so great, though still frightful. Thus one hundred syphilitic wives, almost all infected by their husbands, had two hundred and eight pregnancies, and sixty children survived, while in one hundred and forty-eight cases miscarriage occurred, or premature labor, the children being stillborn, or dying shortly after birth from causes which could be rationally imputed to syphilis. These figures show a mortality of seventy-one per cent., which is to be attributed to syphilis. These statistics are from private practice, while those from hospital observations make this mortality eighty-six per cent.

Syphilis is thus justly regarded by Fournier as one of the most important factors in the depopulation of France. Among the means which he urges to lessen the activity of this cause is the prevention of the early marriage of a syphilitic, and he lays down the rule, that such a person should not marry for a period of from three to four years, during which appropriate therapeutic treatment is pursued.

When Dr. Noeggerath, a few years ago, read, before the American Gynecological Society, his paper upon latent gonorrhœa, especially as a cause of sterility in the female, Dr. Barker stated that, if the views expressed in it were true, a modification of the paper ought to be in every Sunday school library in the land. While a similar suggestion is not made in regard to Fournier's facts, it certainly is a question whether society ought not take some steps to prevent the too early marriage of syphilitics—whether, indeed, the law might not wisely and justly interfere to protect the health of innocent women, and to guard against fœticide and child murder.

Even if legal enactments are impossible, it may be a question for wise and thoughtful parents to consider whether the young man who seeks the hand of their daughter in marriage is free from venereal disease. The majority of parents probably think more of his social position and his wealth than of his freedom from physical taint, and in some cases learn their error too late.

Certainly the physician can do much to prevent the marriage of a syphilitic man until he has been quarantined at least for the period which Fournier suggests. But whether he should make any communication directly or indirectly to the other party concerned is an open question; ought he not, knowing the condition of the intended groom, and being the family physician to the intended bride, in some way let her know the peril she incurs? But, then, the moral question recurs as to his right to make known that which he may have learned mediately or immediately as a professional secret. In most instances, however, love is blind, and his words of warning, if uttered, would be as idle wind.

A PLEA FOR NOISELESS STREET-PAVEMENTS.

MUCH has been written upon the subject of street-pavements from a sanitary standpoint. Invention has been busy, and costly experiments have been tried to determine the best substitute for the ordinary cobble pavement, which is an abomination of American cities, and it would appear that we are coming nearer to a solution of the problem than ever before.

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The principal qualities which a city pavement should possess are durability, impermeability, smoothness of surface, and noiselessness. When the kyanized-wood pavement was first introduced, it was supposed that a desideratum for a long time contemplated had been supplied, but its speedy decay soon demonstrated its unfitness, and it has been almost entirely discarded in this country. The "composition" pavement was at one time popular, but the material in its construction proved to be unsuitable to resist the wear and tear of even ordinary traffic. MacAdamized roadways are objectionable on account of dust and mud, and the expense of constant repairs. Asphalt blocks have been tried, but they do not appear to be sufficiently durable to withstand heavy traffic, though excellent in small streets, or where the travel is light. The pavements which experience has proved to be most suitable, and which meet the varied requirements of a city, are the granite-block pavements, with even surface and pitched joints, laid on a solid foundation, and the true asphalt pavement laid on a firm bed of concrete; the former being best adapted for the great thoroughfares; the latter for those portions of the city where residences are found and where traffic is light.

The asphalt pavement, by reason of its durability, imperviousness, seamlessness, and smoothness of surface, commends itself to popular favor. Not only is it a pleasure to ride over such a pavement, but it affords an immense saving in wear and tear to both vehicles and animals.

There is one feature of the asphalt pavement, however, to which we desire to call particular attention, and that is its noiselessness, and on this account it is to be preferred where traffic is not too heavy and severe. The incessant clatter and din of horses and vehicles passing over streets, as ordinarily paved, are very trying to many persons. To those nervously constituted or of delicate sensibilities, this form of noise causes great annoyance and is wearing upon the health. To the sick, it is painful in the extreme. The tan-covered street is too frequently the evidence that endurance has been overstepped, and that relief must be purchased at whatever expense. The incessant rattling of vehicles over the rough stony surfaces is bad enough in the daytime, but, when prolonged into the hours commonly allotted to rest it interferes with healthful sleep. The constant noise by day and the interruption of sleep by night annoy the nervous system and tend to render it morbid. Habit goes a great way in obtunding sensibilities, but the effort required to accustom one's self to submit calmly to annoyances often costs dearly. According to an old proverb, we are to endure willingly what we cannot avoid. But there is no sufficient reason why we should submit to a nuisance which has no right to exist and which could be entirely avoided by a little good management.

Now that it has been demonstrated that street surfaces can be paved in such a manner as to be nearly noiseless, and that other qualities of essential importance need not be sacrificed to this prominent idea, let us demand such improved pavements for the sake of comfort and health. The quiet of the Sabbath, in contrast with the never-ceasing din of the week-day, is welcomed for the respite it affords from the incessant noises which tease and exhaust the nervous system. Such quiet, or an approach thereto, it is possible to enjoy upon every day in the week, and it would be of inestimable advantage to the comfort and health of the people. Let us then, by all means, have noiseless pavements.

THE RADICAL CURE OF HERNIA.

IN the modern, or direct, operation for the radical cure of hernia, which consists of ligation of the neck of the sac, with excision of its fundus, and suturing the pillars of the ring, the proportion of failures to the cures amounts, if we mistake not, to about 23.5 per cent., the relapses being due to the weakness of the cicatrix in the serous membrane, which is unable to resist the wave-like impulse of the intestines. As ordinarily performed, the defective point in the operation appears to be the ineffectual sealing up of the entrance of the sac, and MR. BALL, of Dublin, in a paper published in the *British Medical Journal* for September 6, 1884, suggests that a more complete closure could be secured by twisting the sac, tying its neck with an antiseptic ligature, and preventing untwisting by carrying the intercolumnar sutures through the sac. As we have seen no further report of the progress of his cases, we are unable to say what amount of permanent success he has attained.

In the *Medical Chronicle* for June, 1885, MR. JAMES HARDIE, of Manchester, describes a modification of the usual procedure, through which a more abundant inflammatory exudation, with a correspondingly firm cicatrix, and a more effective barrier to the future descent of the hernia are obtained. The sac having been opened, the ligature is carried not only around its neck, but around the transversalis fascia as well, thereby including in the thread a considerable thickness of tissue. The sac itself is not dissected out, but in suturing the pillars of the ring the needle is carried through the subjacent portion of the sac, by which manœuvre the sutures have a better hold, and all of the parts become incorporated into a firmer cicatrix. Unfortunately, a sufficient time had not elapsed in the seventeen cases in which it had been practised to determine the real value of the operation as a curative measure.

In a paper contributed to the same issue of the Journal mentioned in the preceding paragraph, MR.

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SOUTHAM, of Manchester, calls attention to utilizing the omentum in the radical cure of scrotal hernia. After reducing the bowel in the usual way, the sac, still containing the omentum, is separated from the surrounding tissues as far up as its neck. The neck of the sac and omentum are then transfixed together by a needle armed with a strong double catgut ligature, and tied in two halves, after which the sac and omentum beyond the point of ligature are cut away. In this way the crural canal is left plugged with a mass of omentum, which acts as a barrier to redescent of the gut.

As in the operation of Hardie, sufficient time had not elapsed to test the real merits of Southam's method; but as both procedures would appear to be great improvements over the ordinary direct method, we trust that they will be subjected to an extended trial.

POLLUTION OF OUR RIVERS.

BEFORE the adjournment of the Legislature of Pennsylvania, an act was passed creating a State Board of Health, which has since become a law by the signature of the Governor. The appointments have already been made, and the Board has just organized. We would suggest as a subject demanding the early consideration of the Board, the pollution of the rivers of the State, in order that the necessary data may be obtained upon which to base a recommendation for future legislation. It is a well-known fact that a number of rivers and streams from which potable water is obtained for supplying cities and towns are grossly contaminated by sewage. These places are without the power to suppress the nuisance for want of jurisdiction, and they are not in a position to remonstrate against the act of pollution, since they are, in most cases, guilty of the same objectionable practice. A report upon the subject furnishing the results of a careful investigation and the progress of legislation in other States, and in other countries, with such suggestions as are applicable to our own State, will go far toward establishing an enlightened understanding of the question, and toward preparing the way for subsequent legislation.

SOCIETY PROCEEDINGS.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

Seventh Annual Congress held at Detroit, Michigan, June 24, 25, and 26, 1885.

(Specially reported for THE MEDICAL NEWS.)

WEDNESDAY, JUNE 24TH.—FIRST DAY.

THE seventh annual meeting of the American Laryngological Association was opened on Wednesday morning, June 24th, by an *Address of Welcome* from DR. INGLIS, President of the Medical Library and Journal Association of Detroit. An address of welcome was also delivered by DR. SHURLY, of Detroit, President of the Association.

The first paper of the Congress, also by DR. SHURLY, was on

THE USE OF GALVANISM IN CHRONIC DISEASES OF THE PHARYNX.

In this he stated that at the congress of 1880 he had called attention to the use of galvanism in pharyngitis sicca, since when he had used galvanism in a number of cases with good results. The difficulties attending the use of electrodes in the pharynx could be reduced through the use of cocaine, making this plan of treatment of general practicability. He believed that certain conditions of the pharynx, such as chronic engorgement, hypersecretion, etc., are often only local expressions of a derangement of the stomach, the intestinal canal, or possibly some more remote organ. Certain neuroses of the pharynx, such as hyperæsthesia, spasm, also paræsthesia, are dependent upon derangement either of these same organs or of the genito-urinary or mental apparatus, all of which require little or no local treatment. There are certain organic lesions also, of the pharyngeal mucous membrane, which are characterized by glandular hypertrophy, general hyperplasia, hypersecretion, atrophy with diminished secretion, etc. To these he wished to call special attention. They constitute changes which are trophic, and are distinct local disorders.

He believed that glandular hypertrophy and atrophy, with or without persistent extra secretion, and with little organic change in the membrane, were due to a perversion of function of the nervous apparatus distributed through the pharyngeal region. Mere mechanical effect of infiltration or interstitial deposit could not account altogether for the waste of the membrane. It seemed impossible too that the symptoms of typical pharyngeal disease could be fairly attributed to ordinary inflammation and its consequences. Some of these conditions were probably distinct local diseases having for their origin some nutritive abnormality antecedent to the inflammatory changes; perhaps due to metabolic derangement through a disordered trophic function of the hypoglossal, pneumogastric, or sympathetic nerve. Acting upon this theory, he had employed different agents for local use, and of these had gained more lasting effect from galvanism. The mucous membrane having remained in many cases of a vivid color and bathed in a fluid secretion several hours after the application, and in case of atrophy leaving an exhilarating sensation of heat and pliability.

In the severer forms of chronic nasal catarrh, in cases of engorgement with hypersecretion, and also in distinctly neurotic conditions, such as paræsthesia, he had had good effects from galvanism. The following method was advised: First, cleanse the membrane with some appropriate solution, then apply a four per cent. solution of cocaine, and in about five minutes apply the electrodes (which were then exhibited), one through the nasal passage and the other to the posterior and lateral wall of the pharynx, moving them rapidly but gently over the surface and keeping them closely applied. He generally began with two cells, increasing to four or five, of a battery composed of the improved Leclanché

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cells. The electrodes are naked, unless one is to be applied to the side of the neck, when that is covered. The application should be repeated two or three times a week, although in some cases one thorough treatment a week is enough. This method will not restore already destroyed tissue, but it will arrest those metamorphoses which finally result in either the loss of glandular as well as other elements of the membrane, or the substitution of adventitious for the normal tissues. The time required for permanent results will vary with the case and the state of chronicity presented. The only therapeutic theory was the restoration of the nutrition and normal secretion of the parts by the direct application of the electric fluid to the terminal nerve filaments.

DR. F. H. HOOPER, of Boston, next read a paper entitled

THE RESPIRATORY FUNCTION OF THE HUMAN LARYNX

from experimental studies in the Physiciological Laboratory of Harvard University. He doubted the accuracy of the theory which been advanced by many writers that there is a proclivity of the abductor fibres of the recurrent laryngeal nerve to become affected by disease earlier than the adductor fibres, and his paper was an inquiry into the truth of this problem solely from an anatomical, physiological, and experimental standpoint. The sources from which nervous impulses for the larynx could be received and the channels through which they might be transmitted were minutely reviewed, and the conclusion was reached that the respiratory or abductor nerve filaments contained in the recurrent laryngeal are derived from a greater variety of sources than the phonatory or adductor fibres. The respiratory muscles of the larynx are physiologically more important than the other intrinsic laryngeal muscles, and their extensive nerve supply, the reader claimed, is to protect them from disease, not to open up new channels by which harm may come to them. The experiments were performed on dogs and on one occasion a horse. The dogs were so arranged that the vocal bands could be watched through the mouth while the recurrent nerves were stimulated. It is a familiar fact that under normal conditions any irritation applied to one or both of the recurrent nerves produces a sudden closure of the glottis. The experiments were made on dogs, first, in a state of profound narcosis; second, by irritating the recurrent nerve while it was being slowly destroyed by crystals of chromic acid placed upon it; third, after a thread had been passed through the nerve and retained there many days in order to excite inflammatory changes.

He found that when a dog is profoundly etherized, the action of the constrictor muscles of the glottis is completely abolished. Under these circumstances any stimulation applied to the recurrent nerves produces a forcible dilatation of the glottis instead of the familiar closure. The experiment with chromic acid did not show that there is a proclivity of the abductor fibres to succumb earlier than any others. In one experiment in which a thread had been inserted in the recurrent nerve and kept there a week, it produced some alteration of the nerve fibres, so that when a nerve was irritated below this point the vocal band was abducted, showing that the abductor fibres had lost their power to respond to stimulation. The conclusions were as follows: The principal fact demonstrated is the power and endurance of the posterior cricoarytenoid muscles and of the nerves which supply them. The theoretical reasons are, first, the physiological importance of these muscles; second, their belonging to organic life; third, their extensive nerve supply, all of which tend to preserve their functional integrity. Moreover, if it be true that there is a "proclivity" of the abductor fibres to become diseased, and that unilateral paralysis of the abductor muscle is such a common and harmless lesion, can we not expect theoretically that bilateral paralysis of this muscle will occur more frequently? Yet there can be no dispute whatever that bilateral paralysis of the posterior cricoarytenoids is a disease as rare as it is grave.

Now, with regard to these muscles being *extensors* and like the extensors in other parts of the body, the forearm for instance, more liable to succumb to disease than the flexors, he would ask this simple question: Why should the terms extension and flexion be applied to the rotation of the arytenoid cartilages? The principal office of the posterior arytenoids is to maintain the respiratory patency of the glottis. From the beginning to the end of life they are in a state of semicontraction. They come, therefore, just as near being flexors as extensors, but as a matter of fact are neither the one nor the other in the ordinary acceptation of these terms as applied to the muscles of the general system. They are *respiratory* muscles carrying on a special function. One may as well speak of the movement of the pupil as extension and flexion, or compare the diastole of the heart to the extensors of the forearm or its systole to the bending of the toe. Muscles are analogous, as they discharge analogous function. We recognize no more analogy between the posterior crico-arytenoid muscles of the larynx and the extensor communis digitorum of the forearm than there is between respiration and prehension. If it is desired to seek muscles that are analogous, other respiratory muscles should be examined and the influence of disease upon them noted. In diffused progressive diseases of the nervo-muscular system it is known that of all muscles except the heart itself those belonging to the respiratory system are always the last to be attacked, and there is no valid reason why the respiratory muscles of the larynx, either one or both, should offer an exception to the rule, especially as they are the most important of all. The writer proposed to investigate this subject from a clinical aspect at some future date when perhaps the positions which immobile vocal bands assume may be sufficiently explained without attributing to a wise and conservative nature a proclivity to attack one of the most vital muscles of the human system.

DR. J. SOLIS-COHEN, of Philadelphia, considered it a great honor to the American Laryngological Association to have had this valuable paper brought before it, and believed it would be historical. These experiments would be subjected to criticism, and their verification would become a matter of history in the controversy now existing as to the peculiarity of these abductor fibres to become diseased sooner than the adductors. The dogmatism with which the assertion had been made seemed to have almost paralyzed laryngolicists. For, with the exception of himself, he hardly knew anyone who had ventured a word against it. Even when he had presented a clinical case opposing the theory,

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and had shown a picture of a larynx, it had been simply in deference to himself that much had not been said against it. The only word of commendation he had received was from Dr. Krause, of Berlin, who had stated that he believed the observation was correct, but attributed the lesion to a different cause. He had had no experience in the physiological experiments made by Dr. Hooper, but there was a point which the latter mentioned which had received clinical support. It was with reference to the facial nerve in sending the respiratory forces to the pharyngeal. In the case of a child suffering from diphtheria with great dyspnœa, he declined to perform tracheotomy because the child was under two years of age. Knowing the great effect of cold on the facial nerve in stimulating the facial centres he placed iced cloths all over the lower part of the neck and jaw. Whenever the iced cloth was applied an inspiration took place. By repeating this frequently the child's life was saved. The phenomena in stimulating one recurrent so that its vocal band passes beyond the median line as in phonation, was confirmatory of some of Krause's experiments.

DR. HARRISON ALLEN, of Philadelphia, said the analogy between constriction and adduction and between dilatation and abduction was, in his judgment, tenable.

DR. E. FLETCHER INGALS, of Chicago, said that in support of the paper in a clinical way he had recently had a case similar to the one related by Dr. Cohen, excepting as to the origin.

DR. DELAVAN, of New York, desired to unite his congratulations with those of Dr. Cohen upon Dr. Hooper's paper. Reference had been made in the paper to a motor centre for the human larynx. Since publishing his own paper on this subject several important contributions had appeared which tended still further to establish the fact of the existence of such a centre, and he hoped that sufficient clinical evidence would soon be accumulated to place the matter beyond a doubt.

DR. HOOPER, in closing, stated that he had only attempted in his paper to study the subject on general physiological and experimental grounds. Clinically it seems a difficult question, and one in which there are many sources of error. We are dealing with one of the most complicated organs in the body and in using the laryngeal mirror are looking at things in perspective which are in almost constant motion. It is often important to say whether a vocal band stands motionless in the median line, or a few millimetres off from it. If we call every paralyzed vocal band we see a paralysis of the posterior crico-arytenoid muscle, we can multiply such cases very rapidly. The theory that there is a "proclivity" of the posterior crico-arytenoid fibres to become diseased is not only contrary to nature, but the dogmatic manner in which it has by some been advanced ought of itself to cause us to doubt its accuracy. He should feel sorry to have an association like our own subscribe to this notion on the very shallow evidence at present presented. The speaker desired to express his indebtedness to Dr. Bowditch, Professor of Physiology in the Harvard Medical School, and others connected with the department, whose assistance had been of value to him in the preparation of his paper.

DR. H. A. JOHNSON, of Chicago, next read a paper on

SOME OF THE MOTOR DERANGEMENTS OF THE LARYNX, WITH CAUSES,

in which he related the histories of over twenty cases, of unusual interest and value.

DR. WILLIAM C. GLASGOW, of St. Louis, next presented a paper on

CERTAIN VASO-MOTOR DISTURBANCES OF THE NASAL MEMBRANE.

He stated that for some time his attention had been attracted by a series of cases which were not explained by the well-known factors of inflammatory process. Resembling them somewhat, there were still differences which necessitated an additional and independent influence for their production. The laws of vaso-motor action, although still imperfectly developed, would seem to explain them, and the success attending the use of therapeutic agents verifies it. The observations of the writer had led him to arrive at somewhat different views than those developed by several members of this Society, especially by Drs. Mackenzie, of Baltimore, Roe and Daly, and by our colaborer Hack, of Freiburg. He had noticed a series of cases characterized by great swelling, especially of the cavernous tissue, and a profuse discharge of limpid fluid, and abnormal paleness of the mucous membrane. Formerly, when they occurred during the summer months, he had been content to consider them as modified types of so-called hay fever; occurring during the year, irrespective of seasons, he had become convinced that there was a different agency from that then recognized as the essential factor in hay fever. He believed that the chief part of the disturbance is neurotic, considering the so-called hay fever to be a functional disorder of the nervous system in which hypersensitiveness of the nasal mucus membrane occurs, producing there the well-known reflex symptoms and disturbances of the normal vaso-motor action. He still considers these cases as closely allied both in etiology and mechanism with the so-called cases of hay fever. He had selected three cases which showed the distinct and different types of nasal disturbance. The writer concluded that the condition is due to contraction of the arterioles due to an increased tone of the vessels caused by an augmented action of the constrictors. In short, the minute vessels supplying the arteries are in a state of spasm and dilatation. The general arterial tension is increased, the outward flow of the more solid portions of the blood is prevented, and the cavernous bodies of the mucous membrane become infiltrated with escaping white corpuscles and the liquor sanguinis. To these must be added the liquefaction and increase of the glandular secretions as the result of gland stimulation. The theory of spasm of the arterioles is supported by the favorable action of remedies which favor arterial dilatation, such as atropine.

The discussion was participated in by Drs. Roe, Robertson, Mackenzie, and Allen.

DR. JOHN N. MACKENZIE, of Baltimore, next read a paper on

REFLECTIONS ON THE ETIOLOGY OF THE SIMPLE INFLAMMATORY AFFECTIONS OF THE UPPER AIR-PASSAGES.

His conclusions were as follows: First. Inflammation of the upper respiratory tract, either in its entirety, or

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localized in its individual parts, is a disease of the human race which has existed from the remotest period of historic times. Second. As the chief predisposing and exciting causes of the affection have been in operation for all ages, its origin is, therefore, coeval with the birth of man. Third. The evolution of nasal, pharyngeal, and laryngeal disease in a given locality is, in all probability, a part of its geological history, and goes on *pari passu* with its varying meteorological conditions. Hence, the geographical limits of the disease have varied with different epochs of the earth's formation.

The first portion of Dr. Mackenzie's paper was devoted to the elaboration of the above propositions. He next discussed in detail the chief predisposing and exciting causes proceeding from affections of the system as a whole, or disease of individual organs remote from the nasal passages, and the relations of syphilis, tuberculosis, gout, rheumatism, etc., to the affection in question. Having shown that nasal and laryngeal disease may proceed from a direct or indirect irritation, from a host of substances derived from the outer world, from an almost indefinite number of pathological conditions of the body as a whole, or from irritation or disease of organs distant from the seat of local inflammation, the reader proceeded to the discussion of the part which structural peculiarities play in the etiology of these affections, and to the consideration of the so-called catarrhal diathesis, which latter may be looked upon simply as a generic term for a multitude of varied physical peculiarities. Setting aside the inflammation which results from purely local irritation, it may be laid down as a law that the vast majority of catarrhal, pharyngeal, and laryngeal disease originates primarily in inflammation of the nasal cavities. He next quoted a number of causes efficient in the production of catarrh, and closed his paper with a proposition that in a large proportion of cases the existence of chronic inflammation in the nasal, pharyngeal, or laryngeal cavities is not due to any one particular cause, but is the resultant of a number of internal and external forces.

DR. COHEN then asked whether the climatic conditions referred to in the paper could not often be altered. The patient, however, could be protected by suitable hygienic and dietetic supervision. The functions of digestion and excretion must be attended to, the skin be kept in good order, and revulsive measures be adopted to withdraw morbid influences from the upper respiratory tract. Local measures without due consideration of constitutional conditions did not fulfil the requirements. Acute laryngitis occurred frequently in those not suffering with chronic catarrhal diseases and subsided without such a sequel. On the other hand, subacute inflammations had occurred most frequently in his experience in the subjects of chronic disease as exacerbations due to some special exposure. The spasmodic affections of infants alluded to in the paper as occurring in the subject of chronic naso-pharyngeal catarrh, were similar in origin to the night cough of infants, being due to trickling of mucus in the larynx. The indication, then, is to place the sleeping infant in a position which will not allow the entrance of secretion into the larynx and of course to treat the catarrhal disease.

DR. H. A. JOHNSON, of Chicago, remarked that naso-pharyngeal catarrh is common around our great lakes, and is frequently benefited by a change of climate to the western plains, up to an altitude of five or six thousand feet. In high mountains the disease is aggravated. General tonics are of great value.

DR. INGALS, of Chicago, also emphasized the necessity of attention to the constitutional condition, but said on the other hand we should not lose sight of the constitutional manifestations due to the nasal disease. In many cases great impairment of general health is dependent upon nasal obstruction, and remarkable improvement would immediately succeed removal of the nasal obstruction.

DR. GLASGOW, of St. Louis, believed that dust held a most important place in the production of catarrhal symptoms.

DR. ALLEN considered that local treatment in these was of great importance,

DR. MACKENZIE closed the discussion by stating that his position was, that the localization of catarrhal processes in the retronasal space, or the geographical limits of the disease, have little to do with the presence of dust in the atmosphere. While true that dust accidentally lodged in the nasal passages may give rise to inflammation, he believed that few cases originate in this way, for reasons which he had explained in his paper.

DR. D. BRYSON DELAVAN next read a paper on

ERYSIPELAS OF THE LARYNX AND PHARYNX.

The reader referred to the classic thesis upon this subject published by Cornil, in 1862, and stated that although well known to Hippocrates the subject had of late received so little attention, particularly in this country, that but one case had been reported; while Morrell Mackenzie stated in his *résumé* of it, that he had seen but four. Having given a short review of the subject, the writer proceeded to relate two original cases. In case first the disease originated in one tonsil. It spread over the pharynx and thence extended through the nasal cavities to the lips, face, and head. The patient suffered from marked cerebral symptoms of an acute form and two weeks after convalescence developed a condition of insanity which remained chronic. The next case occurred in an aged patient of rheumatic habit and broken-down constitution. She was attacked with what at first seemed acute laryngitis. The disease, however, spread in both directions involving both the lungs and the pharynx, producing in the former distinct and widespread broncho-pneumonia, and in the latter an intense congestion. Laryngoscopic examination showed the larynx to be tumefied and of a dark purplish color. There was no necessity for tracheotomy, however. The constitutional symptoms were comparatively slight. The patient recovered. The cerebral symptoms in "case first" were evidently due to an acute meningitis due to the influence of the systemic poisoning. This having become chronic, was the cause of the resultant insanity. The writer believed that erysipelas of the pharynx and larynx was not an uncommon affection, and urged that greater interest be taken in the recognition and recording of cases.

DR. DE BLOIS, of Boston, called attention to a case of this kind which he reported about a year ago.

DR. RICE, of New York, agreed with the writer in believing the disease of occasional occurrence among

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the broken-down subjects met with in general hospital practice.

DR. ROE, of Rochester, had in a similar case applied a spray of alcohol with good success.

DR. COHEN suggested that from the well-known efficacy of the hydrochlorate of pilocarpin in facial erysipelas it might prove a valuable remedy in this special manifestation.

DR. DELAVAN, in closing the discussion, suggested that in the use of pilocarpin the dose commonly recommended was excessive. He had made an extended series of observations upon the effect of this drug, and believed that the dose of one-twentieth of a grain hypodermically should, as a rule, be the maximum when administered to the patient for the first time.

THURSDAY, JUNE 25TH.—SECOND DAY.

In the course of the business meeting

THE REPORT OF THE LIBRARIAN

excited much interest. During the last six months the library had been more than doubled, and the catalogue presented by the librarian showed a list of 25 bound volumes and 364 pamphlets. The support of the Association and of its friends was earnestly solicited.

The regular session of the morning was opened by the reading by title of a *Case of Submucous Laryngeal Hemorrhage Complicated by Cyst*, by DR. FRANK L. IVES, of New York.

DR. HARRISON ALLEN, of Philadelphia, then read a paper on

THE GALVANOCAUTERY IN LARYNGOLOGICAL PRACTICE,

with which he presented a new and original cautery snare. The snare was based upon the principle of the Jarvis instrument, excepting that a platinum wire was used and arrangements for attachment with the battery so that the snare might be used either cold or with the galvanocautery. Some interesting principles in the use of the instrument were explained.

A short and interesting paper upon *The Principles Involved in the Construction of Spray-tubes*, by DR. ANDREW H. SMITH, of New York, was then read by the Secretary.

A number of

NEW INSTRUMENTS

were next presented. The exhibition of improved electric lights and galvanocauteries was by far the most important ever presented to the Association, and the advances made in this department during the past year of extraordinary significance.

DR. COHEN presented an excellent accumulator, manufactured in Philadelphia, together with an electrical laryngoscope and other attachments.

DR. DEBLOIS presented a new powder-blower combined with a laryngeal mirror.

DR. ASCH presented two instruments—an osteotome for the removal of exostoses in the nasal passages, and a modification of the Jarvis snare, in which the wire was secured by a clamp instead of being wound around a pin.

DR. HOOPER showed the electric lamp and pocket-accumulator as perfected by Dr. Felix Semon and Mr. Arthur Vesey; manufactured by J. Weiss & Son, London.

DR. SEILER and DR. JARVIS also presented instruments.

The session of the afternoon was opened by the reading of an elaborate and highly interesting paper, by DR. E. FLETCHER INGALS, of Chicago, entitled

LEUCOPLAKIA BUCCALIS ET LINGUÆ, OR ICHTHYOSIS LINGUÆ: SUCCESSFUL TREATMENT BY THE GALVANO-CAUTERY.

During the past year it had been the author's good fortune to cure a case of the rare and intractable disease which formed the subject of this paper. The disease had been recognized but a short time, very little had been written upon it, and that little was involved in what at first seemed inextricable confusion. This because several different affections had been confounded and described under the same name. Thus, "smokers' patches," the condition found in old glass-blowers termed "professional patches," psoriasis linguæ, and various manifestations of syphilis, having been considered by different authors as true leucoplakia or as one of its phases. Prof. Ingals defined leucoplakia buccalis as a chronic affection of the buccal mucous membrane, characterized by thickening of the epithelium, and the formation of white, opaline, elevated patches, which usually become fissured and painful, and, after continuing for a long time are likely to terminate in epithelioma. A full history of the disease was given with copious references. The anatomical characters, causation, clinical history, and diagnosis were thoroughly considered. As to prognosis, the duration of the disease is uncertain. Two cases were referred to in which cancer supervened in less than six months. Among the indications that leucoplakia is passing into epithelioma were non-inflammatory enlargements of the lymphatic glands with exfoliation of the thicker portion of the patch, the formation of an ulcer, the supervention of sharp pain, salivation, and at length induration of the subjacent tissue; finally great swelling in the region of the jaw is likely to occur, and death takes place from exhaustion.

Treatment. In cases of leucoplakia all sources of irritation, particularly those resulting from the use of alcohol, should be at once removed, and if the digestive organs are deranged, as is frequently the case, they should receive proper attention. Aside from these measures, most authorities believe treatment of little or no avail. In the case reported in the paper, internal remedies were useless and local applications of tincture of iodine, nitrate of silver, and the acid nitrate of murcury greatly increased the patient's suffering, and would doubtless have aggravated the disease had they been persisted in. As soon, however, as the actual galvanocautery was applied, relief from all pain was obtained, and by a persistent and careful use of it the disease was eradicated. From a study of the literature of the subject and from his own experience, the author had arrived at the following conclusions: First, leucoplakia buccalis is an idiopathic disease distinct from psoriasis, "smoker's patches," and syphilis. It is largely confined to men past middle life, but occasionally occurs in women. Second, the disease is so commonly found in inveterate smokers that the abuse of tobacco may be fairly claimed as an exciting cause, though cases occur where tobacco has never been used. Third, the affec-

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tion is chronic, and finally terminates, in a majority of cases, in epithelioma. Fourth, internal treatment and the local application of sedative, stimulant, or caustic drugs is in nearly all cases either useless or injurious, and the latter are sometimes disastrous by hastening the development of epithelioma. Fifth, the actual cautery or the galvanocautery will probably enable us to cure many cases, if they are treated sufficiently early, provided it is applied to only a small spot at each sitting and carefully, so as not to destroy the healthy tissue beneath the changed epithelium.

The author's case was then recited in detail and a complete bibliography of the subject appended.

In the unanimous opinion of the Association the paper of Dr. Ingals was a timely and important communication which could not fail to excite widespread interest.

DR. R. P. LINCOLN, of New York, contributed a paper in which he reported

A CASE OF MELANO-SARCOMA OF THE NOSE CURED BY GALVANOCAUTERIZATION.

A little over two years ago, patient first noticed an obstruction to free respiration in the right nostril. This was followed by continual mucopurulent blood-stained discharge. Her general health at this time was good, there was little or no pain. Six months later this nostril became completely occluded. The growth was then removed, and pronounced upon microscopic examination to be cancerous. Two months later the former symptoms reappeared, and continued to increase for eight months, when the first operation was again repeated. In the course of four months afterwards the tumor increased very rapidly, when the patient placed herself in the hands of a so-called "cancer doctor." The patient came under the observation of Dr. Lincoln in November, 1884. At this time the right side of the nose, extending to the inner canthus of the eye, showed a fulness amounting to about four times the size of the left side of the nose. The lower half of its ala was wanting, and there protruded from the right nostril for about half an inch a dark-colored, fleshy mass, which completely filled it. This was attached to the outer margin of the nostril as well as to its floor. A plum-colored discharge flowed constantly from the nostril, and the lightest touch by a probe upon the mass excited hemorrhage. Exploration showed the tumor to grow from the inferior and middle turbinated bones and from the floor of the nostril for a distance of two and a half inches. The septum was free.

The tumor protruded in the post-nasal cavity, occupying about half of it. Its removal was effected by means of the galvanocaustic écraseur, and a subsequent cauterization of points of attachment. Great pains were taken to make the cauterization complete, and thus secure the entire removal of diseased tissue. Hemorrhage was inconsiderable. A disinfectant solution was used for about a week after the operation. The patient was allowed to return home two weeks after the operation. On May 27, 1885, the patient having returned at intervals of one or two months since the operation, careful examination failed to reveal the slightest recurrence of the disease. A microscopical examination of the tumor made by Dr. Frank Ferguson of the Pathological Department of the New York Hospital, identified the tumor as a true melanotic sarcoma.

ANGIOMA OF THE NOSE.

In the next paper DR. J. O. ROE, of Rochester, New York, presented the history of an extremely interesting tumor of the nasal cavity, which the microscope proved to be an angioma. The subject in general was thoroughly discussed by the writer, and a full bibliography of the subject furnished.

DR. MACKENZIE remarked that certain cases of angiomatous nasal growths might be referred to the category of hypertrophic enlargement of the turbinated bodies.

DR. J. W. ROBERTSON, of Detroit, then read a paper on

DEFORMITIES OF THE NOSE AS A FACTOR IN NASAL CATARRH.

He inquired, first, What are the causes of the large number of deformed noses? Second, At what age do these deviations from the normal take place? Third, In what way do these deformities produce catarrhal diseases? And fourth, How can these abnormal conditions be prevented?

The author then related statistics from which it appeared that a large percentage of deformities of the nose were directly due to injuries received, syphilis, scrofula, tuberculosis, and allied diseases, which caused the necrosis, ulceration, and also congenital improper development. The deviations from the normal took place, according to statistics given by Dr. Robinson, in large proportion between the ages of ten and twenty years, either through the receipt of injury, or improper development due to malnutrition. These deformities, through the blocking up of secretions, a local malnutrition, or too free entrance of air, may give rise to catarrh. These abnormal conditions might be avoided by understanding that the time to prevent catarrh and its concomitant diseases is during the growing period of childhood. Deformities due to traumatism, such as fractures and dislocations, are more easily relieved in the young, and should be attended with as much care as corresponding injuries in a larger bone. In cases of syphilitic and scrofulous diseases, where the secretions are profuse and inclined to adhere to the mucous membrane, the constant irritation should be relieved by appropriate measures. Care as to hygienic surroundings and an attempt by proper treatment and feeding to develop, if possible, the bony structures of the nose in children, should be observed.

DR. MACKENZIE referred to the custom of the ancient Persians with reference to securing symmetry of the nasal chamber in the children of the royal blood.

DR. CLARENCE C. RICE, of New York, then read a paper on

INFLAMMATORY ADHESIONS OF THE SOFT PALATE TO THE WALL OF THE PHARYNX.

The author recognized the lack of success which heretofore has characterized the efforts of most operators for the relief of this condition. In considering the prognosis such cases should be divided into two classes, first where the sole lesion is the adhesion of the soft palate to the walls of the pharynx; and, second, where in addition to this, extensive cicatrization had narrowed the normal cavity of the naso-pharynx. The author paid a high tribute to the skill and success of the late

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Dr. Elsberg in the treatment of these cases, and closed the paper with the relation of an original case in which he had operated with success.

FRIDAY, JUNE 26TH.—THIRD DAY.

DR. BEVERLY ROBINSON, of New York, presented a paper on

ALIMENTATION IN LARYNGEAL PHTHISIS,

which was read by the Secretary. The writer explained that three methods of treatment were in vogue for the alimentation of such patients: first, the method of superalimentation, advocated by De Bove and others; second, the method by means of a tube of small calibre passed a short distance into the œsophagus, and proposed by Delavan; and third, the method by rectal enema. All of these methods he explained somewhat in detail, and opposed against them certain objections, fortifying his conclusions by the quotation of several original cases. He strongly advocated the application to the ulcerated parts of cocaine, which greatly diminished the dysphagia and enabled the patient to swallow with comparative ease. Without the use of a local anæsthetic, however, such as cocaine, it was admitted that in some cases of laryngeal phthisis, when deglutition was otherwise painful, the patient might be sustained for months by means of injections of food into the stomach through an œsophageal tube. Moreover, that in those severe cases in which the passage of the œsophageal tube occasioned considerable pain, dyspnœa, or nervous exhaustion, and despite the previous local use of cocaine, recourse might be had, as heretofore, to the use of nutrient enemata judiciously managed.

DR. COHEN spoke favorably of the use of the small tube passed only part way into the œsophagus, which method he had used with good results.

DR. DELAVAN also defended the method on the ground that by the use of the tube ulcerated parts were protected from irritation; that the use of cociane was in many cases unsatisfactory; that the method, although not uniformly successful, would be found of value in a large number of these distressing cases, and objected to its condemnation by Dr. Robinson on the slender basis of two unsuccessful cases. As to the point raised by Dr. Robinson, that the method had been described by Dr. Frank Donaldson, in 1883, he desired to call the Association's attention to the fact that he had presented a full description of it in his candidate's thesis for the American Laryngological Association, submitted to the Council of the Association in the early part of 1880.

In the absence of DR. F. H. BOSWORTH, of New York, his paper, *An Additional Note on the Therapeutic Action of Cocaine*, was read by title.

A paper, upon *Personal Experience with some Recent Additions to the Materia Medica of Laryngology*, by DR. S. SOLIS-COHEN, of Philadelphia, was next presented. In this the author's experience with several new drugs was related, and many original and valuable suggestions communicated.

A paper, entitled *A Case of Membranous Nasal Catarrh*, in the absence of the author, DR. G. W. MAJOR, of Montreal, was read by title.

The literary exercises of the session were concluded by a discussion on

THE EFFICACY OF MILD MEASURES IN THE TREATMENT OF SO-CALLED NASO- AND NASO-PHARYNGEAL CATARRH,

which was opened by DR. COHEN, who argued that less radical measures than those now in popular use were frequently indicated, and suggested the importance of distinguishing between true hypertrophy and mere turgescence of the nasal mucous membrane. He advocated pressure as an efficient means for the reduction of turgescence, and suggested an ingenious method by which equable pressure could be employed. This was the introduction into the nostril of a laminaria tent, cut down until its cylindrical form had been reduced to a thin, flattened oval. This, in proportion to the size of the nasal cavity. The tent was to be introduced into the nostril, and, moistened by the nasal secretions, allowed to swell,—the patient meanwhile being directed to prevent the tent from swelling to such a degree that it could not easily be removed.

The discussion was participated in by Drs. DeBlois, Cooper, Asch, Rice, Mackenzie, and Shurly, and the views expressed by Dr. Cohen were very cordially received.

A vote of thanks was made by the Association to the Detroit Medical and Library Association, to the physicians of Detroit, and to the members of the Detroit press, from all of whom many courtesies had been received.

The ballot for

OFFICERS

resulted in the election of:

President.—Dr. Harrison Allen, of Philadelphia.

First Vice-President.—Dr. H. A. Johnson, of Chicago.

Second Vice-President.—Dr. George W. Major, of Montreal.

Secretary and Treasurer.—Dr. D. Bryson Delavan, of New York.

Librarian.—Dr. Thomas R. French, of Brooklyn.

Member of Council.—Dr. J. Solis-Cohen, of Philadelphia.

The *next annual meeting* will be held in the City of Philadelphia, on the last Thursday in May, 1886.

STATE MEDICAL SOCIETY OF WISCONSIN.

Thirty-ninth Annual Meeting, held at Milwaukee, June 2, 3, and 4, 1885.

(Specially reported for THE MEDICAL NEWS.)

THE PRESIDENT, E. W. BARTLETT, M.D., of Milwaukee, called the Society to order, and delivered an address which related chiefly to ethical questions, and was referred to the Committee on Ethics.

DR. MEACHER, of the Committee on Surgery, then presented a paper upon the

COMPARATIVE MERITS OF SYME'S AND PIROGOFF'S OPERATIONS,

in which he considered that Pirogoff's operation is better adapted to cases in which the patient cannot procure an artificial foot, while Syme's method of procedure gives a stump well adapted to the use of a substitute for the lost member: hence, the surgeon in adopting one or the other method must be guided to some extent by the circumstances of the patient. The

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writer in closing referred to Chopart's operation with strong disapproval; he deemed its propriety very doubtful in any case.

In a second paper on

THE SURGICAL TREATMENT OF HEMORRHOIDS AND ANAL FISTULA,

he favored the treatment of hemorrhoids by ligature in preference to any other mode, and regarded the knife as being the only proper instrument to use in fistula, except only those cases as have the internal opening high up in the bowel while the external aperture is far removed from the anus; these cases he preferred to treat by the elastic ligature.

DR. S. MARKS, of the same Committee, presented the subject of

INGUINAL AND FEMORAL HERNIA,

and the duty of the surgeon in cases of strangulation. He thought that there is often a failure in exercising sufficient care in taxis; that no form of surgical practice demands greater patience on the surgeon's part, and that the writers on surgery generally fail to emphasize this matter sufficiently. Twenty years ago he would have considered a surgeon who failed to operate early in a case of strangulated inguinal hernia as guilty of malpractice, but later experience had caused him to change his opinion. If the symptoms are such as to indicate imminent danger, if the pulse is at 120 or over, if fecal vomiting is present, etc., he would still operate without delay, for in such a case there is no time to lose, and nothing whatever to gain by delay; but if the surgeon is called in due season, and before matters have reached so desperate a stage, he should place the patient fully under the influence of narcotics, keeping him narcotized for twenty-four hours or longer, and applying taxis from time to time. By so proceeding he had avoided the necessity of operating in a majority of cases within the last ten years. In femoral hernia he favored early operation, as otherwise the risk of forming artificial anus is very great; but in the inguinal form, so long as there is only ordinary bilious vomiting, while the pulse is strong and not too frequent and indications are otherwise favorable, he preferred to push narcotics, watching his patient carefully meanwhile, and to use the aid that position and taxis can give in preference to operating. While the danger of operating under antiseptic precautions is not great, and while by an operation you almost always make a permanent cure of inguinal hernia, still, Dr. Marks feels confident that by narcotism and delay in favorable cases, surgeons will lose fewer cases than have been lost in the past.

DR. SENN said that in every case of operation for strangulated hernia, he believed it to be the surgeon's duty to follow up that proceeding by excision of the sac and closure of the hernial ring, thus mechanically obstructing the outlet and preventing a relapse, or by replacing the sac within the abdomen, and uniting the ring sutures, and cited a case in point.

DR. ARMSTRONG, of the Committee on

OBSTETRICS AND GYNECOLOGY,

reported on recent progress in these departments of medical science. Among the points noted were the use of antiseptics and germicides, the employment of electricity to prevent hemorrhage, and the many forms of operation that have been brought to the notice of the profession in recent years.

DR. D. C. DAVIES presented a paper on the *Ignorant Use of Ergot in Obstetrics*, quoting in illustration a case that had occurred in his own practice, and Dr. H. J. Stalker offered a short account of an instance of *Arrested Development*, with photographs of the fœtus.

DR. LA COUNT exhibited a section of a femur, presenting a fine illustration of

CENTRAL OSTEOMYELITIS,

affecting the lower portion of the shaft, and showing the way in which adjacent joints became involved, thus adding to the gravity of the disease. Dr. Senn exhibited another, taken from a young subject, and showing the advantages of early surgical interference.

DR. WHITING, on behalf of the venerable Dr. Harmon Van Dusen, for more than thirty years an active member of the Society, and several times its president, presented the Society with a diploma issued by the Medical Society of the County of Onondaga, New York, in 1826. It was formally accepted, and the Society resolved that it should be placed for safe keeping in the rooms of the State Historical Society, at Madison, and that the sincere thanks of the Medical Society be conveyed to Dr. Van Dusen.

DR. J. M. DODSON read a paper on the

TREATMENT OF HYPERPYREXIA,

in which he considered the cold bath as the best means of combating fever, and thought that the difficulty attendant on its administration is the chief reason why it is not more frequently employed; he suggested that the portable rubber bathing tub offered a means by which the difficulty may be reduced to a minimum. The cold pack ranks next in usefulness, and the application of ice bags to the spine is also of great value. Where these means are not available, and the physician is compelled to rely on drugs, quinine is the most trustworthy resource, but it should be used in large doses; fifteen grains is the smallest dose that can be regarded as antipyretic, and much larger quantities may be safely given. Next to quinine, antipyrine is the best agent for reducing temperature, but it cannot be regarded as absolutely safe, its use having caused death in at least one instance, and having been followed by undesirable effects in others. Dr. Dobson thought that in the exanthemata of children too little attention is given to the temperature, and he feared that lives have been sacrificed which might have been saved had this point engaged the physician's consideration, and means been employed to meet it.

DR. F. W. EPLEY proposed for consideration and answer a question often propounded to the practising physician by the Pension Office, upon the reply to which hinged decisions materially affecting the welfare of many persons,

"WHAT WAS THE IMMEDIATE CAUSE OF HIS DEATH?"

The inquiry is a very simple one on the face of it, but, unfortunately, the answer returned by the physician to the Pension Bureau often failed to give the information sought. For instance, a soldier contracts rheumatism while in the service, and after repeated attacks is dis-

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charged and pensioned. He gets on after a fashion, suffering from occasional attacks of the disease, for which he at first consults a physician, but failing to derive much benefit from treatment, ceases after a while to call on the doctor when attacked. In the end dropsy supervenes, the physician is again called in, and attends the patient until he dies. Now his pension ceases, his widow applies for a renewal on her own behalf, and the question is asked of the attendant physician, "What was the immediate cause of death?" How shall the doctor answer it? Dr. Epley believed that it is at times answered in such a way as to defeat the object which the Pension Bureau desired to attain.

DR. G. C. STOCKMAN, of the Committee on

NEW REMEDIES,

made a report. He considered that in the use of any remedy there should be clear indications therefor, and that the only foundation of such indications is scientific clinical observation. Cocaine, antipyrine, and paraldehyde will, he thought, prove valuable additions to the materia medica.

DR. G. H. FOX, of the same Committee, gave a verbal report of a case of periostitis from local injury, and of several cases of rheumatism treated with fluid extract of manacca.

DR. BUCKMASTER, of the State Insane Hospital, read a paper on

ILLUSTRIOUS INSANE,

among whom he ranked Cambyses, Nero, Caligula, Julius Cæsar, Mahomet, Joan of Arc, Luther, Dean Swift, Swedenborg, Chas. Lamb, and many other noted personages. Dr. Buckmaster also gave an account of a case of mysophobia, under his own observation, in which the patient was in constant dread of soiling her hands, in washing which she passed a large part of her time, while she utterly neglected cleanliness in other respects, and had worn underclothing unchanged for many months.

DR. WIGGINTON, of the Northern Insane Hospital, presented some

NOTES ON INSANITY,

and on the relation of the medical profession to the insane of the State. He considered that the insane hospital is too often regarded as being the last resort instead of an institution to which the first preference should be given, and that the delay resulting from this opinion is in many cases disastrous to the patients. A large proportion of the hopelessly incurable cases may be traced to the lack of proper treatment in their earlier stages, whereas by timely measures, such as are only practicable in an hospital, many of them might and probably would have been restored to health and usefulness. A prejudice against the hospital had been created in the public mind, which he thought was due in part to sensational and untruthful statements in the non-medical press, careless and exaggerated assertions made by patients and their friends, needless legislative investigations, and the like, and in part to the natural shrinking from the publicity required by the law preliminary to commitment, and to the extreme opinions entertained and expressed by some physicians with regard to hospitals and their work. Dr. Wigginton thought that a change in the law might be made with advantage, so that a certain class of patients would be enabled to avail themselves of the advantages of the hospital upon their own application and without the formality of examination and legal commitment, and that greater care on the part of physicians in making examinations when these are needful would also be a movement in the right direction. There were many cases of senile dementia which should never be sent away from their own homes, and even in cases of acute mania sometimes, the entrance to the hospital, especially when preceded by a long journey, was almost equivalent to a sentence of speedy death.

DR. GAPEN cited a case very similar to that described by Dr. Buckmaster. A young man of a New England family which had pretty nearly run out by reason of intermarriage and consequent hereditary influences, broke down from overwork and began to manifest peculiar anxiety as to personal cleanliness, and, in addition to this anxiety, he developed a fear lest through his neglect something involving terrible consequences would happen to some one else. Thus, if he crossed a railroad track he would examine it, lest there should be something amiss that might throw a passing train off, and return again and again to the survey lest some accident should happen for which he would be indirectly responsible; or he would worry over a stretch of sidewalk lest there might be an orange-peel which he might have forgotten to knock off, and in consequence of his failure to do so somebody might slip and break a bone. Dr. Gapen thought that the prospect of improvement in such cases was practically *nil*, as the insanity was often only the culminating point in a long series of family degenerations. He desired to make one other point, and to protest against the tendency to multiply names. If every idea or combination of ideas that the insane mind was capable of forming were to be taken as the base, a volume as large as Webster's unabridged dictionary would be too small to contain the nomenclature of insanity. We had already such terms as aidoimania, mysophobia, agrophobia, panomania, and a host of similar words, and almost every day brings out some new one. Every man who observed a fixed idea in any other man's brain seems to think himself bound to coin a new word which shall describe that idea, and it was time to call a halt.

DR. HAUSMAN said, in reference to Dr. Wigginton's suggestion, that physicians should exercise great care in making examinations for commitment to an insane hospital; that the line of demarcation between sanity and insanity is very obscure; and that consequently the difficulties in the way of an examining physician are frequently great. He is called upon by the county judge to examine a patient whom neither he nor his coadjutor has ever seen before, and is expected to decide authoritatively—off-hand, as it were—on the sanity or mental unsoundness of the case. Persons are brought to the county seat, it may be by their relatives or by the supervisors of a town, who say that these persons act as if they were insane—that it is unsafe to allow them to be at liberty—and adduce evidence in support of these assertions, and the examining physicians have only the very unsatisfactory opportunity afforded by one or two interviews in open court. What is the wonder if mistakes are sometimes made?

DR. GAPEN suggested that one means of avoiding

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the difficulty of which Dr. Hausman had spoken, and it was one that every physician who was called upon to make such examination felt, would be to establish, at various points if practicable, but certainly at one readily accessible place, hospitals for temporary commitment, where patients conld be under observation for a sufficient time to enable a physician to make a correct decision with more certainty than is now sometimes possible. This whole matter is one of great importance to the physician, for he has not only the moral responsibility, but his reputation and sometimes his property is at stake. There have been cases where the examining physician has been mulcted in heavy damages, and even though this were not a consequence—though the prosecution may have failed, it was unjust to place a physician in a position which rendered him liable to such proceedings. A commitment to such an institution as Dr. Gapen had in mind, moreover, would not convey the idea of stigma which exists for many persons in connection with an insane asylum, and when after careful observation in such an institution an individual was finally removed to one of the State Hospitals, his friend could not feel that perhaps after all a great injustice had been done him, and would have no ground for reproaching themselves or anyone else.

DR. BERWIG discussed *Medical Humbugs, Regular and Irregular*, at considerable length, pleading for greater stringency in the conditions of admission to medical colleges at the beginning, and for such action on the part of the profession as should refuse recognition to unqualified practitioners, whether the possessors of diplomas or not.

DR. MCARTHUR, of La Crosse, reported a case of

SERIOUS INJURY TO THE LEFT ANKLE,

in which both malleoli were fractured and a cut opening directly into the joint was produced. After careful consideration it was decided to make an attempt to save the limb; the fragments were placed in apposition and retained by a plaster-of-Paris dressing. The wound was treated on antiseptic principles with excellent results. The accident occurred, July 14, 1884, and on Jan. 15, 1885, the patient made her first attempt to walk without crutches. At date of the report "motion was perfect and, except for the fact that the joint had not entirely recovered its strength, it was as useful as its fellow. All that remained (visible) to tell of the accident was a slight scar.

DR. G. F. WITTER reported a case of

OPERATION FOR HARELIP AND CLEFT PALATE

at four weeks of age. Deformity was very great, and it was exceedingly difficult for the child to take nourishment. The operation was a successful one, and the Doctor's plea was for early operations in similar cases.

DR. PARKHAM read a brief paper on the

DIAGNOSTIC VALUE OF KOCH'S CHOLERA BACILLUS,

claiming that the answer to the question, whether the bacilli were pathogenic of cholera, must, with our present knowledge, be in the affirmative. In any case of choleraic diarrhœa, the patient should be isolated as a matter of precaution, and this being done, the microscope would enable the physician to make his diagnosis with scientific exactness, and with hardly a possibility of mistake. A microscopic examination of the dejecta of the first cases, followed up by culture experiments for from thirty-six to forty-eight hours would render sanitary authorities complete masters of the situation. Both methods should be employed, as the microscope alone is sufficient in but few cases, while absolute certainty is attained by the aid of culture-experiments. The paper was illustrated by microscopic specimens, including a slide prepared by Koch himself.

DR. EPLEY of the Special Committee on the

RELATION OF THE MEDICAL PROFESSION TO COURTS OF JUSTICE

appointed at the preceding meeting of the Society made a report. The Committee had after consultation prepared a bill, which had been introduced into the Legislature, but had failed to receive favorable consideration. The Wisconsin Legislature at its last session, was made up very largely of men who failed entirely to appreciate the character and value of expert testimony, and deemed it no different from the testimony of an ordinary witness to the facts. "There is a doctor; he knows something about a given case; why shouldn't he be called upon to testify to what he knows just the same as any other man having knowledge concerning it, and why should he set up a claim for special compensation rather than any other witness?" That is the idea that the majority of legislators have upon the question, and they won't talk with you about the matter.

DR. G. H. FOX considered that there was but one way for the medical profession to assert itself with dignity in the matter of expert testimony, which was to refuse to testify unless properly remunerated. Let a subpœna be issued for any member of this Society, and let him refuse to obey; then a bench warrant would probably issue and the doctor would be brought into court. Then he could refuse to testify and would be committed for contempt; the whole matter could then be brought before the Supreme Court, and an authoritative decision had upon the question, which was something that had not been obtained in any State in the Union he believed. For his own part he would take the course indicated, provided the Society would support him in so doing.

DR. BYERS said that he had been a member of the Legislature before which the bill mentioned by Dr. Epley had come, and he believed that the prospect of getting such a bill through either the Assembly or the Senate was hopeless, and that the course suggested by Dr. Fox was much more promising of favorable results.

Dr. Byers thought, however, that a physician who proposed to carry out the plan should refuse to be sworn when on the witness stand, rather than refuse to testify after being sworn; it was possible that if he were to take the oath the law could compel him to testify.

DR. GAPEN had given the matter a good deal of attention, as it was a question that came up in the course of his lectures to the law students at the State University every year. It seemed to him that the law was explicit. There was nothing said in the summons for an expert witness which differed from an ordinary summons; the summons having been issued and duly served, he thought that the doctor was bound to obey it so far as his appearance in court was concerned, but he thought

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that if he refused to testify, and were committed for contempt, and a test case made for the supreme court, that court would sustain him in his refusal. In any event the whole business would thus be brought prominently before the public. If Dr. Fox were prepared to undertake the battle, he believed that the Society should sustain him in so doing, and if a favorable decision could be obtained, it would be an advantage to every physician in the State and in the country at large. He moved that an assessment be levied on the members of the Society for the purpose of meeting the expenses of carrying a case to the supreme court.

DR. EPLEY, in seconding the motion, said that he thought not only the members of the State Medical Society but the profession throughout the State would willingly contribute to such a fund, and that looking at what the Legislature had done in other directions, he thought it high time that the physicians of the State should demand proper consideration.

DR. MCLEOD said that he had been recently summoned to testify as an expert in the United States Court, and had asked the judge if he were compelled to testify not knowing anything of the facts in the case, and what the result would be if he refused. The judge replied that no precedent had been established, but that if the doctor chose he could refuse to testify, and by making a test case have the question settled. Dr. McLeod was not at that time in a position to undertake the work with all the inconvenience and trouble attendant on it, but that if he were called upon hereafter, he thought that he would refuse to testify and carry the question to the supreme court.

DR. GAPEN changed the form of his motion so that it stood that a committee be appointed to assess the Society a reasonable sum to carry the whole matter on a test case before the supreme court. It does not seem worth while to carry it beyond the Supreme Court of Wisconsin; a decision there will be all that the members of this Society need, and the decision of the supreme court of one State is respectfully considered by the courts of all other States. The motion was carried.

The Society then proceeded to the

ELECTION OF OFFICERS,

which resulted as follows:

President.—Dr. G. M. Steele, of Oshkosh.

Vice-Presidents.—Drs. S. C. Johnson, of Hudson, and D. C. Davies, of Columbus.

Committee on Ethics.—Drs. Barnett, Russell, and Armstrong.

Censor, for three years.—Dr. Senn.

Permanent Secretary.—Dr. J. T. Reeve, of Appleton.

MISCELLANEOUS BUSINESS.

Fraternal greetings were exchanged with the Ontario Medical Society, which was in session at the same time; and communications from the State Medical Society of Nebraska, relative to inter-State representation; from the Medical Society of New Jersey, relative to medical education; and from the Association of Medical Superintendents of Institutions for the Insane, relative to the immigration of the defective classes, were received, and referred to appropriate Committees for action and report.

A communication from the American Medical Association, relative to the establishment of Boards of Medical Examiners in all States, was received, and the general plan proposed by the Association was cordially approved by the Society.

A banquet at the Plantation House was the marked social feature of the session, and was highly enjoyed by those who participated in it.

Before closing the session, which was, in several respects, one of the most important in the history of the Society, the Committee on

ETHICS,

to whom was referred the President's Address, reported the following resolution, which was unanimously adopted:

Resolved, That the State Medical Society of Wisconsin hereby reaffirms its steadfast adhesion to the Code of Ethics of the American Medical Association.

The next session of the Society will be held in the City of Madison, on the first Tuesday in June, 1886.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, June 12, 1885.

VICE-PRESIDENT, EDW. H. TRENHOLME, M.D., IN THE CHAIR.

A CASE OF TETANY.

DR. STEWART exhibited a man aged 39, who for the past five years had been the subject of well-marked tetany. He had served as a soldier during the late American civil war, and had had three distinct malarial attacks during this period. He also suffered from chronic dysentery for about eighteen months. For the past seven years he has seldom or never been free from diarrhœa. Never had either rheumatism or syphilis. Family history good. The following is a description of the case: Every two weeks he is seized with a spasmodic contraction of the muscles of the fingers; the thumbs become adducted and opposed, the fingers flexed and abducted. This contraction comes on at times suddenly, but usually slowly, and remains from eleven to twelve days, when it passes away, leaving the parts in a normal condition. The spastic condition slowly increases day by day until it reaches its acme on the twelfth day. The return to the normal seldom occupies longer than twenty-four hours. At times the flexors of the forearms are strongly contracted, and also the adductors of the upper arms, causing the arms to be crossed in front of the chest. The muscles of the lower extremities are only occasionally involved, and then to a slight extent compared with the hands and arms. The facial muscles feel stiff and painful during the period of contracture, and they are the seat of constant fibrillary twitchings, which are much increased on tapping. The patient says that he experiences a sensation in his face as if the skin was too tightly drawn. During the period of spastic contraction he has diplopia. The electrical reactions of the muscles and nerves are enormously increased when he is suffering from the spasms, but after these have have passed off, the reactions are normal. Last week when there was marked tetany, 0.25 of a milliampère was sufficient to bring out K. s. z.—on irritation of the radial; but at present, when his muscles are in their normal state, it takes fully 4 (normal) milliampères to produce this contraction. This

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strength of current produces tetanus in shutting the kathode (*κcτε*), and opening the anode (*αοτε*). There is no change in the normal formula, the K. s. z. < a. o. z. The great increase in the galvanic irritability is not confined to the radial, but is present also in the ulnar, facial, and other nerves. The disproportion between the faradic irritability in the normal and spastic states is not marked. There is marked increase in the mechanical action of the nerves and muscles. Steady pressure on either has the effect of increasing the spasms. The patellar reflexes, which are greatly exaggerated during the tetany, are scarcely to be brought out when it has completely passed away. The same applies to the biceps and triceps reflexes. The tongue, is raw, appetite fair. He is seldom free from diarrhœa, the average number of stools during twenty-four hours being about six. They are copious, frothy, semifluid, and have a pea-soup appearance. The urine is acid, normal in quantity, sp. gr. 1030, contains a large amount of urea and indican, but it is free from both albumen and sugar. The heart and lungs are normal. There is no increase in the white blood cells, no hepatic or splenic enlargement. The case differs from those hitherto published in the marked chronicity and the persistence of the spasms for days in place of hours.

Dr. Stewart, after referring to the usual causes of this disease, such as lactation, diarrhœa, and the so-called rheumatic influence, gave a description of that peculiar variety which follows extirpation of enlarged thyroids. While the former are nearly always recovered from, the latter are fatal. A description was given of a section of cervical cord of a young girl who died from tetany twelve months after removal of enlarged thyroid. No change of any apparent import could be discovered in this section. Dr. Stewart remarked that nothing definite as to the true nature of this remarkable disease is known.

In the discussion which followed the reading of the paper, DR. GEORGE ROSS said he would like to ask Dr. Stewart the mode of death in the fatal cases he had seen. The disease is such a rare one in this country that he had seen but few cases.

DR. HENRY HOWARD, after alluding to the various disorders of the nervous system allied to tetany, said that in his opinion a more complete anatomical and physiological knowledge of the nervous system is necessary before the exact cause of these cases can be positively known; but he thought that some irritation or inflammation of the vaso-motor nervous system may account for this disease. He had strong hopes that in the near future, with the many workers and varied means of research, the cause of diseases such as cancer, tetany, etc., will be found, and when recognized early that they may be successfully treated.

DR. GODFREY had seen several cases of tetany, or a disease like it, during the last fifteen years.

DR. SHEPHERD asked why it is that tetany is so much more common on the Continent of Europe than in America or England, epidemics of the disease being unknown in either place, and whether tetany is more common in the dark races, as is tetanus.

DR. R. J. B. HOWARD said it is remarkable that two such different diseases as myœdema and tetany should occur so commonly after extirpation of the thyroid gland. They occur in animals as well as man. He suggested that where possible the isthmus only of the thyroid should be removed, as in the 150 experiments of removal of the isthmus, performed by Victor Horsley on animals, none suffered from tetany.

DR. WILKINS said that although he had never had a case of tetany, he was much interested in the disease, and thought it probably due to irritation of the peripheral nerves, as these cases always follow diarrhœa, removal of the thyroid, or some other lesion.

DR. STEWART, in reply, said that in the fatal cases he had seen there was spastic contraction of the respiratory muscle and bronchitis. He could not tell the reason of the frequency of the disease in Europe; of course, removal of the thyroid is a very common operation there, and this would account for some of the cases, but not the epidemic form. He had seen 60 to 70 cases in the General Hospital at Vienna at one time. So frequently did this disease follow extirpation of the thyroid, that Billroth had given up operating for bronchocele, except in cases where the tumors endangered life. He was not aware of the disease being known in the West Indies, or that it is more frequent in the negro race. As to the theories advanced to explain its nature, he thought that advanced by Weiss, of Vienna, as the most probable. Weiss looks upon the origin of the trouble as due to irritation of the sympathetic, waves of dilatation and contraction being alternately set up.

CORRESPONDENCE.

THE INTERNATIONAL SANITARY CONFERENCE.

The excursion to Naples proved to be a very enjoyable affair, and afforded the delegates to the Sanitary Conference an opportunity not only to see Pompeii and other points of interest in the vicinity of Naples, but also to become better acquainted with each other, and to discuss, in a quiet way, the various subjects in which they were specially interested. From the time of leaving Rome—Monday morning—until their return on Thursday evening, the delegates were the guests of the Italian Government, and nothing which could conduce to their comfort or pleasure was overlooked.

For your correspondent, the most memorable event of the journey was a long conversation with Dr. Koch upon bacteria in general and the comma-bacillus in particular. It is evident that Dr. Koch has full faith in his own most recent discovery, and believes that the etiological relation of the comma-bacillus to cholera will soon be generally, admitted notwithstanding the adverse report of Dr. Klein. It was my intention upon leaving home to go to Berlin immediately after the adjournment of the Conference for the purpose of visiting Dr. Koch's laboratory, but having learned from him that it is just now in a state of confusion owing to a change of location, I have abandoned this idea at present.

From a sanitary point of view, the only thing of interest which we saw in Naples was the new water-works, which the mayor of the city exhibited with justifiable pride. A pure supply is obtained from distant mountain streams, and the only novel feature consists in the storage reservoirs, which are all under ground. We were conducted to the summit of a hill within

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the city limits, and then descended, by means of a winding staircase, into a well fifteen or twenty feet in diameter. This central shaft is connected at various levels with arched passages which lead to the reservoirs, which are of enormous capacity and quite equal to the wants of the city. We were conducted through one which is not yet in use. All of the excavations have been made in the soft volcanic tufa which underlies the city of Naples. This has the advantage of being easily worked and of affording substantial walls and ceiling without any masonry or other support. The reservoirs are made water-tight by the application of Portland cement directly upon the natural walls of tufa.

It will be interesting to note the difference in the mortality rate of this city, which has long been noted for its insanitary condition, as a result of this great sanitary improvement, the completion of which was recently celebrated by a visit of the King, by civic ceremonies, and by general festivities and rejoicings. If this is followed, as is now contemplated, by an elaborate and well-considered system of sewerage, it may prove that the recent visitation of cholera was a blessing in disguise, for under the stimulus of this scourge sanitary improvements are being pushed with vigor, and we may yet see the mortality reports of this old Italian city put to the blush many of our prosperous American cities which have far less excuse for their sanitary sins.

The day after the return to Rome the Conference reconvened, and the detailed report of the proceedings of the technical subcommission was placed in the hands of each delegate. A printed abstract of the conclusions reached had also been prepared, but was so full of errors that it could not be accepted. Upon motion, the learned president, Dr. Moleschott, was requested to prepare an abstract for the use of the delegates.

After the transaction of certain routine business, the diplomatic delegate from Germany, Baron Kendall, took the floor and complimented the technical delegates upon their assiduity and upon the results of their labors. He then proceeded to say that at an informal conference of the diplomatic delegates present, it had been agreed that it would be necessary to confer with their respective governments before any definite action could be taken in the way of establishing an international convention upon the basis of the report of the technical subcommission. For this reason it was thought desirable that the Conference should now adjourn to meet again in the autumn. This proposition was adopted unanimously; and the following day, at the suggestion of the Italian Government, the Conference adjourned, to meet again on the 16th of November.

The same evening I started upon my return journey, going by way of the St. Gothard tunnel, through Switzerland to Mayence on the Rhine, down this river to Cologne, and then by rail to Brussels. One object in visiting this city was to call upon Dr. Van Ermengem, to whom I had a card of introduction from Dr. Koch, but I learned that he had been absent for three weeks in Spain, where he is no doubt pursuing his studies with reference to the "comma-bacillus." We shall no doubt hear from him in due time through the medical journals, and also from Dr. Roux, of Pasteur's laboratory, who has been sent by the French Government to pursue similar studies, and especially to investigate the claims of Dr. Ferrán.

By the way, I have not met with any expert in bacteriological researches who is inclined to attach great importance to these inoculation experiments. The newspaper reports have not been of a nature to inspire confidence in their scientific value on the part of such men as Pasteur, Koch, and Watson Cheyne. But, in the absence of full details as to methods and results, it is of course impossible to attempt to pass judgment in the case, and we must wait for the report of the experts now on the spot—Van Ermengem and Roux—who will doubtless give us an impartial judgment founded upon the facts.

From Brussels, I went directly to London. The few days at my disposal before sailing gave me an opportunity to make the acquaintance of the leading English investigators in bacteriology—Watson Cheyne and Klein. The first-named gentleman is just now engaged in an interesting research with reference to an infectious disease of the honey-bee, known to bee-keepers as "foul-brood." This he finds to be due to a bacillus which he has been able to cultivate, He was kind enough to present me with a pure culture of this bacillus, and also of several other microörganisms not in my collection.

As is well known, Watson Cheyne is the principal defender of Koch's "comma-bacillus" in England. He showed me a pure culture of this in gelatine, side by side with a culture of Finkler's curved bacillus, and pointed out the difference in the mode of growth of these two organisms, which are doubtless distinct, notwithstanding their close morphological resemblance. Dr. Klein also showed me cultures of the comma-bacillus in gelatine, from stock which he obtained while in India, and also slides, mounted on the spot, from the mucous flakes in the dejections of cholera patients, in which, as he pointed out, the comma-bacilli were associated with a variety of other forms, and were not especially numerous. Klein lays great stress upon the fact that curved bacilli, which he says cannot be distinguished from Koch's "comma-bacillus," are found in considerable abundance in the alvine discharges of healthy guinea-pigs—the animal upon which successful inoculations have been reported by Koch and others. Evidently this fact has no more significance than the fact that curved bacilli are found in the healthy human mouth and elsewhere, unless it is also shown that these curved bacilli from the intestine of the guinea-pig are identical with the "comma-bacillus" as regards their mode of growth in gelatine, and in their physiological characters as determined by inoculation experiments.

We will no doubt have further reports from Klein shortly, upon the cholera question, as he is now engaged in repeating Koch's inoculation experiments. Thus far he has not obtained any results which induce him to change the opinion which he has heretofore expressed as a result of his researches in India.

Dr. Klein has a well-equipped laboratory and is evidently not only an enthusiastic investigator, but a skilful manipulator. His methods of making inoculations —which he kindly showed me—and of conducting culture experiments were beyond reproach. But in my

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conversation with him I received the impression that he has not a strictly judicial mind in estimating the value of experimental evidence which comes from sources outside of his own laboratory.

ON BOARD STEAMER GERMANIC.
Saturday, June 27, 1885.

NEWS ITEMS.

BOSTON.

(From our Special Correspondent.)

THE INTERNATIONAL MEDICAL CONGRESS AND THE MEDICAL PROFESSION OF BOSTON.—At a meeting of a number of members of the medical profession of Boston which was held on Thursday, July 2d, the following preamble and resolution were adopted:

Whereas, We had been led to believe that the authority to organize and control the Ninth International Medical Congress had been permanently delegated by the American Medical Association to its original committee, thus providing against any radical changes in its published programme; and

Whereas, The American Medical Association has revised the action and annulled appointments of that committee in a way which we regard as detrimental to the interests of the medical profession of America and fatal to the success of the Congress; therefore, be it

Resolved, That we, the undersigned, members of the medical profession in Boston and vicinity, concerned in the organization of the Ninth International Medical Congress, decline to hold any office in said Congress as now organized:

Robert Amory,	George M. Garland,
Clarence J. Blake,	J. Orne Green,
Henry P. Bowditch,	Frederick I. Knight,
James R. Chadwick,	Francis Minot,
Hasket Derby,	Oliver F. Wadsworth,
Thomas Dwight,	J. Collins Warren,
Robert T. Edes,	Samuel G. Webber,
Reginald H. Fitz,	E. Wigglesworth,
Charles F. Folsom,	Henry W. Williams,

H. P. Wolcott.

WASHINGTON.

(From our Special Correspondent.)

THE COLUMBIA LYING-IN HOSPITAL.—An investigation has been made recently in the Columbia Lying-in Hospital, at Washington, D.C., of its surgeon in charge, Dr. P. J. Murphy, on charges of irregular habits, bad manners, and general mismanagement, instigated possibly by some patient or subordinate, who has become liable to unfavorable criticism. We learn that the investigation has resulted in the complete exoneration of Dr. Murphy, by a vote of 11 to 2 of the Board of Management, from all the charges brought against him, with an additional vote of entire confidence in his ability, and satisfaction at his management of the institution. The Board of Lady Visitors have also passed a unanimous vote in similar language, and of such a character as cannot be but very gratifying to Dr. Murphy.

We regret, also, to see such charges made common gossip in newspapers, for, unless well established at the outset, they should be kept as private matter.

BALTIMORE.

(From our Special Correspondent.)

THE INTERNATIONAL MEDICAL CONGRESS AND THE MEDICAL PROFESSION OF BALTIMORE.—In consequence of the dissatisfaction caused by the recent action of the new Committee on the Organization of the Ninth International Medical Congress, the subjoined paper has been signed by those whose names are appended.

Whereas, The new Committee on the Organization of the Ninth International Medical Congress, at its recent meeting, held in Chicago, made such changes in the arrangements for the Congress as, in our opinion, will mar its success, and will prove injurious to the interests of the medical profession, it is therefore,

Resolved, That we, the undersigned, disapprove of the action of the Committee, and decline to accept the positions to which we have been appointed under it:

I. E. Atkinson,	Richard McSherry,
S. C. Chew,	F. T. Miles,
Julian J. Chisolm,	Alan P. Smith,
Christopher Johnston,	Samuel Theobald,
William Lee,	L. McLane Tiffany,
John N. Mackenzie,	H. P. C. Wilson.

CHICAGO.

(From our Special Correspondent.)

CHICAGO MEDICAL COLLEGE.—At a recent meeting of the Board of Trustees of the Northwestern University certain changes were made in the Faculty of the Medical Department, Chicago Medical College. Professor E. O. F. Roler, M.D., was elected Emeritus Professor of Obstetrics. Dr. W. W. Jaggard was elected Professor of Obstetrics.

Dr. Christian Fenger tendered his resignation as Professor of General Pathology and Pathological Anatomy. The resignation was accepted, and Dr. N. S. Davis, Jr., lecturer on the same subject, was selected to fill the vacancy during the coming year. Dr. Davis has been studying gross pathology under Kundrat, in Vienna, and pathological histology under Arnold, in Heidelberg, for a considerable period of time.

COLLEGE OF PHYSICIANS AND SURGEONS.—Dr. N. Senn, of Milwaukee, Wis., has accepted the Chair of Principle and Practice of Surgery, and Professor Christian Fenger, M.D., that of Clinical Surgery in the College of Physicians and Surgeons of Chicago. The strength of the Faculty is materially increased by its recent accessions.

SANITARY MEASURES IN CHICAGO.—Dr. Oscar C. De Wolf, Health Commissioner of Chicago, has been granted $100,000 for the purpose of improving the sanitary condition of the city. He has appointed thirty-four inspectors, and hopes to inspect fifty thousand houses before the middle of August.

Complaints, with reference to the smoke nuisance are pouring in upon the Health Commissioner, and Smoke Inspector Merki has instituted suit in over forty cases.

HYPNOTISM.—At a meeting of the Chicago Medical Society, held early in the spring, Dr. Charles Gilbert Davis read a paper, entitled, "Hypnotism," and illus-

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trated the power of mesmerism, by putting a subject, whom he had brought with him, soundly to sleep. A second subject was put to sleep, and the two were placed on the floor. At the command of the doctor, one of the young men appeared to waken with a start. He was then placed in a chair, put to sleep again, and his arms and legs were extended. The first subject was awakened, again mesmerized, commanded to open his eyes and see the ghost of General Washington. The subject opened his eyes, gazed intently before him for a moment, when an expression of fear came over his face, and he started back, and fell to the floor in a convulsive movement, his eyes bulging out, the muscles of the neck perfectly tense.

The second subject was mesmerized, told he was Vanderbilt, and that his pockets were full of gold. The subject immediately replied: "That's right; my name's Vanderbilt. I've got lots of stuff. Won't you come out and take a drink?" Various performances of a similar character occurred, and the topic was opened for general discussion.

The author of the paper was highly complimented for the clearness and distinctness with which the topic was discussed in his paper. The order of ideas and facts was systematic, and the conclusions logical; the words were fitly chosen, the sentences were constructed with a very nice sense of style. Very general scepticism was expressed, however, as to the nature of the demonstrations of the influence of mesmerism upon the two subjects.

DR. WILLIAM E. CLARKE referred to an unhappy demonstration, before the International Medical Congress in London, of the effects of *syngignosticism*, by an American medical gentleman from the North Atlantic seaboard. He expressed a very positive conviction that Dr. Davis had practised a grave imposition upon the members of the Society. An animated debate followed, and the Society adjourned at a late hour, after the appointment of a committee of investigation.

A reporter for *The Chicago Times*, who had gained access to the meeting, recognized one of the subjects as a professional "horse," belonging to a West Side dime museum. A "horse" is an individual whose business it is to pose as a medium. The "horse," recognizing the reporter, besought him, in a whisper, not to disclose the secret. The secular press has teemed with leaders upon the evening's developments ever since. Dr. Davis has published the affidavits of his subjects in several daily papers, to the effect that they were not "horses," and were really under mesmeric influence.

At the stated meeting of the Chicago Medical Society, June 1, 1885, the committee of investigation, of which Dr. Charles Warrington Earle, Dr. Edmund J. Dorring, and Dr. Frank L. Wadsworth were members, made a report, which, upon motion, was accepted, and ordered to be given to the secular press.

The report of the committee alluded to three topics:

I. Upon investigation it was found that the paper entitled "Hypnotism," by Dr. Charles Gilbert Davis, was plagiarized from the *Encyclopædia Britannica*.

II. The subjects illustrating the paper were "horses," that is, imposters. The members of the committee were willing to admit the possibility that Dr. Davis was himself deceived by these men.

III. The strong statements made by Dr. William E. Clarke were true, and merited applause.

The paper and the discussion were expunged from the Society's records.

MONTREAL.

(*From our Special Correspondent.*)

CANADA MEDICAL ASSOCIATION.—The meeting of this Association for 1885 was to have been held in Winnipeg, Manitoba; but, owing to the troubled state of the Northwest, and the consequent absence of many of the medical men, it has been found impossible to make the necessary arrangements to hold the meeting at that place. The Association, however, will meet in Chatham, Ontario, on the 2d and 3d of September,—a cordial invitation having been received from the members in that neighborhood. It is expected that the meeting will be a large one, and already many papers have been promised. Prof. William Osler is the President-elect.

PERSONAL NOTES.—Dr. D. Bergin, M.P., has been elected President of the College of Physicians and Surgeons of Ontario.

Dr. Laberge has received the appointment of Medical Health Officer to the City of Montreal.

Dr. T. Johnson-Alloway, at a recent meeting of the Governors of the Montreal Dispensary, was elected Gynecologist to that institution; and Drs. R. J. B. Howard and J. A. MacDonald, Attending Physicians.

THE CHICAGO COMMITTEE'S ORGANIZATION OF THE INTERNATIONAL MEDICAL CONGRESS.—In response to numerous requests, we publish herewith the changes which were made in the Councils and Secretaryships of the various Sections, which, in connection with the report published last week, completes the list of changes thus far made.

Section of Medical Education, Legislation, and Registration.—Drs. N. S. Davis, of Chicago, and J. H. Rauch, of Springfield, Ill., were omitted from the Council, and the following added: Drs. C. L. Allen, of Rutland, Wis.; J. A. Dibrell, Jr., of Little Rock, Ark.; H. O. Hitchcock, of Kalamazoo, Mich.; J. W. Bailey, of Gainesville, Ga.; and H. King Wylie, of Sanford, Fla. Drs. Mixter and Whitney, of Boston, were stricken out as secretaries, and Dr. E. F. Dunbar, of Boston, was substituted.

Section of Anatomy.—Dr. Burt G. Wilder was stricken from the Council, and Drs. A. Hewson, of Philadelphia; George Halley, of Kansas City; and M. S. Craft, of Jackson, Miss., added.

Section of Physiology.—Drs. H. P. Bowditch, of Boston; H. F. Campbell, of Georgia; and S. Weir Mitchell, of Philadelphia, were omitted from the Council, and there were added Drs. W. F. Hyer, of Holly Springs, Miss.; J. H. Wythe, of San Francisco; Thos. S. Latimer, of Baltimore; A. F. Whelan, of Hillsdale, Mich.; S. Putnam, of Montpelier, Vt.; C. H. A. Kleinschmidt, of Washington; and A. D. Brubaker, of Philadelphia.

Section of Pathology.—From the Council, Drs. Thos. S. Satterthwaite, of New York, and James Tyson, of Philadelphia, were omitted, and the following added: Drs. C. H. Hunter, of Minneapolis; E. O. Shakespeare, of Philadelphia; H. D. Schmidt, of New Orleans; and

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Morris Longstreth, of Philadelphia. Dr. T. M. Prudden, of New York, was stricken out as secretary, and Drs. H. M. Biggs, of New York, and I. M. Hines, of Cleveland, were substituted.

Section of Medicine.—Drs. W. H. Draper and Andrew H. Smith, of New York, and William Pepper, of Philadelphia, were dropped from the Council, and the following substituted: Drs. A. B. Arnold, of Baltimore; Jeff. Williamson, of Ottumwa, Iowa; T. B. Lester, of Kansas City; E. Grissom, of Raleigh; W. H. Phillips, of Canton, Ohio; J. P. Logan, of Atlanta; E. D. Ferguson, of Troy, N. Y.; J. Burnett, of Cleveland; W. W. Cleaver, of Lebanon, Ky.; S. S. Clark, of St. Albans, Vt.; and J. Draper, of Brattleboro, Vt. Drs. R. Harvey Reed, of Mansfield, Ohio, and Walter Hay, of Chicago, were added as secretaries.

Section of Surgery.—Drs. W. W. Dawson, of Cincinnati; Levi C. Lane, of San Francisco; Samuel B. Ward, of Albany; and Robert F. Weir, of New York, were omitted from the Council, and the following added: Drs. O. Coskery, of Baltimore; Jas. McCann, of Pittsburg; H. H. Mudd, of St. Louis; W. F. Westmoreland, of Atlanta; J. P. Wall, of Tampa, Fla.; Leroy M. Bingham, of Burlington, Vt.; F. A. Dunsmoor, of Minneapolis; J. T. Carpenter, of Pottsville, Pa.; W. S. Janney, of Philadelphia; J. E. Garrettson, of Philadelphia; I. N. Quimby, of Jersey City; H. H. Smith, of Philadelphia; J. R. Weist, of Richmond, Ind.; S. D. Mercer, of Omaha; T. A. McGraw, of Detroit; W. F. Andross, of Mitchell, Dakota; W. H. Austin, U. S. M. H. S.; C. A. Wheaton, of St. Paul; Thomas R. Russell, of Oshkosh, Wis.; and J. H. Ransom, of Burlington, Iowa. Dr. Dudley P. Allen, of Cleveland, was added as Secretary.

Section of Obstetrics and Gynecology.—Drs. M. D. Mann, of Buffalo; George H. Lyman, of Boston; Emil Noeggerath, of New York; and T. Gaillard Thomas were dropped from the Council, and the following were added: Drs. Donald McCrea, of Council Bluffs, Iowa; H. O. Marcy, of Boston; D. W. C. Wey, of Holly, Mich.; E. S. Dunster, of Ann Arbor, Mich.; Luke Robinson, of San Francisco; B. E. Hadra, of San Antonio, Mich.; R. S. Sutton, of Pittsburg; R. Glisan, of Portland, Oregon; William Varian, of Titusville, Pa.; C. V. Mottram, of Lawrence, Kansas; E. P. Sale, of Aberdeen, Miss.; T. B. Harvey, of Indianapolis; E. Warner, of Worcester, Mass.; and Lorenzo Fay, of Lowell, Mass.

Section of Ophthalmology.—Drs. Cornelius R. Agnew and Herman Knapp, of New York, and Samuel J. Jones, of Chicago, were dropped from the Council, and the following were added: Drs. Peter D. Keyser, of Philadelphia; David Hunt, of Boston; J. J. Chisolm, of Baltimore; John Green, of St. Louis; B. Joy Jeffries, of Boston; B. E. Freyer, of Kansas City; ——— Minny, of Topeka, Kan.; B. Baldwin, of Montgomery, Ala.; E. Smith, of Detroit; J. L. Thompson, of Indianapolis; A. G. Sinclair, of Memphis; and W. H. Sanders, of Mobile. Dr. Swan M. Burnett, of Washington, was made Secretary.

Section of Otology.—Drs. A. H. Buck, of New York; John Green, of St. Louis; S. O. Richey, of Washington; D. B. St. John Roosa and Samuel Sexton, of New York, were dropped from the Council, and the following added: Drs. C. S. Turnbull, of Philadelphia; C. J. Lundy, of Detroit; C. H. Burnett, of Philadelphia; E. H. Hazen, of Davenport, Iowa; S. J. Jones, of Chicago; J. C. Lippincott, of Pittsburg; and J. H. White, of Richmond. Dr. S. O. Richey, of Washington, was made Secretary.

Section of Dermatology and Syphilis.—Drs. L. Duncan Bulkley, E. L. Keyes, F. N. Otis, and R. W. Taylor, of New York, were stricken from the Council and the following were added: Drs. A. R. Robinson, of New York; H. R. Carter, U. S. M. H. S.; J. A. Octerlony, of Louisville; J. H. McAchran, of Laramie City, Wyoming Ter.; H. O. Walker, of Detroit; W. F. Glenn, of Nashville, and LeGrand B. Dinslow, of St. Paul. Dr. Arthur Van Harlingen, of Philadelphia, was dropped as Secretary, and Dr. F. E. Daniel, of Fort Worth, and W. T. Corlett, of Cleveland, were substituted.

Section of Laryngology.—Drs. F. H. Bosworth, of New York; E. Fletcher Ingals, of Chicago; and J. N. Mackenzie, were omitted from the Council, and Drs. R. P. Lincoln, of New York; C. E. Sajous, of Philadelphia; and H. Goldthwaite, of New York, were added, and Dr. E. F. Ingals, of Chicago, was made an additional Secretary.

Section of Public and International Hygiene.—Drs. A. L. Carroll, of Albany; C. A. Lindsley, of New Haven, J. N. McCormick, of Bowling Green, Ky.; and S. O. Vander Poel, of New York, were dropped from the Council, and the following added: Drs. J. B. Thornton, of Memphis; H. S. Orme, of Los Angeles, California; R. M. Swearingen, of Austin, Texas; H. Leffmann, of Philadelphia; C. M. Hewitt, of Red Wing, Minn.; E. L. B. Godfrey, of Camden, N. J.; W. L. Schenck, of Osage City, Kansas; Benjamin Lee, of Philadelphia; Dudley P. Hart, of Ark.; Joseph Holt, of New Orleans; W. S. Robertson, of Muscatine, Iowa; A. L. Gihon, U. S. N.; E. S. Elder, of Indianapolis; O. C. DeWolf, of Chicago; H. F. Lyster, of Detroit.

Section of Collective Investigation, Nomenclature, Vital Statistics, and Climatology.—Dr. A. Jacobi, of New York, was stricken from the Council, and there were added: Drs. A. C. Hamlin, of Bangor, Me.; T. J. Allen, of Shreveport, La.; A. T. Saball, of Jacksonville, Fla.; T. S. Hopkins, of Thomasville, Ga.; O. W. White, of Detroit; J. W. Parsons, of Portsmouth, N. H.; P. C. Remendino, of Santiago, Cal.; Thomas T. Minor, of Seatle, Washington Ter.; Chas. Denison, of Denver; H. C. Ghent, of Belton, Texas; E. P. Hurd, of Newburyport; E. W. Morley, of Cleveland; W. P. Hart, of Washington, Ark.; R. D. Webb, of Livingston, Ala.

Section of Military and Naval Surgery and Medicine.—There were added to the Council Drs. J. W. Hamilton, of Columbus, O.; J. H. Murphy, of St. Paul; W. C. B. Fifield, of Boston; E. Goodman, of Philadelphia; W. S. Tremaine, U. S. A.; J. H. Peabody, of Omaha; and S. T. Armstrong, of U. S. M. H. S. Dr. J. Mc F. Gaston, of Atlanta, was added as Secretary.

Section of Practical and Experimental Therapeutics.—Drs. Edward Curtis and Laurence Johnson, of New York, were stricken from the Council, and the following were added: Drs. G. Griswold, of New York; F. Stewart, of Cincinnati; J. M. Flint, U. S. N.; E. P. Fraser, of Portland, Oregon; W. G. Breck, of Springfield, Mass.; F. Woodbury, of Philadelphia; J. B. Van Velsas, of Yankton, Dakota; A. B. Tadlock, of Knoxville, Tenn.; J. F. Payne, of Galveston, Texas; T. Weed, of Cleveland;

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D. W. C. Wade, of Holly, Mich.; R. C. Moore, of Omaha: G. M. Garland, of Boston; ——— Buddick, of Omaha: Wm. Compton, of Lancaster, Pa.

Section of Diseases of Children.—Dr. J. H. Ripley, of New York, was stricken from the Council, and the following were added: Drs. W. B. Atkinson, of Philadelphia; E. Walker, of Evansville, Ind.; W. A. Conklin, of Dayton, Iowa; W. F. Holt, of Macon, Ga.; G. K. Johnson, of Grand Rapids, Mich.; C. A. Leale, of New York; S. H. Charlton, of Seymour, Ind.; W. H. Doughty, of Augusta, Ga.; B. H. Riggs, of Selma, Ala.; H. H. Middlekamp, of Warrenton, Mo.; J. A. Hodge, of Henderson, Ky.; G. W. Moody, of Huron, Dakota; and A. A. Horner, of Helena, Ark. Dr. E. T. Williams, of Boston, was substituted for Dr. Thomas M. Rotch, of Boston, as Secretary.

PUBLIC OPINION ON THE INTERNATIONAL CONGRESS ORGANIZATION.—The action of the American Medical Association at New Orleans bids fair to jeopardize the success, if not the existence, of the Congress to be held in Washington in 1887.

The facts of the case, so far as we can learn, are as follows: At the Washington meeting of the American Medical Association, in 1884, a committee of seven was appointed by the President to "extend, on behalf of the medical profession of the United States, to the International Medical Congress, about to meet in Copenhagen, a cordial invitation to have the next International Medical Congress meet at Washington in 1887," and to this committee was given full power to add to their membership, and to perfect the organization. The invitation was tendered and accepted, and, as we understand it, the committee was entrusted by the Executive of the Copenhagen meeting with the care of organizing the next Congress. It became *de facto* a committee, not of the American Medical Association, but of the profession, deriving its existence from the International Congress, and no more responsible to the American Medical Association than to the American Academy of Medicine. In this way only is the organic continuity of these international congresses maintained; each executive appoints its successor, and the committee nominated at Copenhagen is the descendant of the committees which organized the previous meetings. Believing that it had full powers to act, the committee added eighteen or twenty members, chosen rather on professional than geographical grounds, and, at a meeting in November, appointed the officers of Congress and arranged the sections. A pamphlet, giving the details of organization, and a list of the officers of the various sections, was issued this spring, and widely distributed in Europe. At the New Orleans meeting, Dr. Billings reported progress on behalf of the Committee, but the Association expressed its decided condemnation of the work already done, and nominated thirty-eight additional members to take the place of those selected by the original committee of seven.

It is a great pity that Dr. Billings did not then and there assert the independence of the Committee, once having been entrusted with power from the Executive of the Copenhagen Congress. The additional thirty-eight men nominated by the Association may be representatives territorially, but certainly not of the profession, as were those nominated by the committee of seven. With the exception of eight or nine, they are unknown men. Among the officers who were appointed by the Committee are several prominent New York physicians, who, on the Code question, are not in harmony with the American Medical Association, and this seems to have been a special offence. Nothing illustrates more forcibly the necessity of the Executive of the Congress being absolutely independent of the Association; for, if controlled by it, there will be men of great prominence in the profession excluded from participation on account of this wretched Code quarrel—men who, if the Congress was in any other country, would be cordially welcomed. The new Committee has, we learn, decided to meet in Chicago at an early day, and it is to be hoped the members will see the false position in which the Association has placed them and quietly discharge themselves. It is for the original Committee now to determine whether the meeting in 1887 shall be under the wing of the American Medical Association, or whether it shall be truly an international gathering, managed and controlled by representatives of the medical profession of the United States. Upon their determination rests the success or failure of the Congress.

There can be no doubt, as the *New York Medical Journal* says, that the Association was forced into taking this action by some notorious wire-pullers, who were discontented at not having been placed in office. The presence of some of these men on the new Committee is the most objectionable feature about it, and will assuredly alienate the support and sympathy of the very men of the profession who are most needed to make the Congress a success. — *Canada Medical and Surgical Journal*, June, 1885.

When a complete record of the doings of the new Committee is obtained, it will be found that a more general selection has been made from all parts of the country, and yet without any lowering in the standard of the qualifications of those selected. . . . . It will thus appear that the work of the Committee, during its recent meeting, has been, as we predicted, highly conservative, and, for the most part, judicious.—*Journal of the American Medical Association.*

The new Committee proceeded to reconstruct the work of the original Committee in a radical manner. . . . . Many names of representative men, who are loyal to the Code, have been stricken off to make room for new names. . . . . "The axe is laid unto the root of the trees." Comments are in order. It is said that the wind is set from the east, and that we may expect a tempest, if not a tornado.—*Louisville Medical News.*

The preamble and resolutions adopted by our brethren in Philadelphia show plainly that the strong men of the profession in that city are not to be made the cat's paws of a little knot of agitators. It is significant that several of the names signed to the resolution are those of men appointed to high positions in the new list of officers of the Congress. . . . . We must confess that the outlook for the Congress is gloomy.—*New York Medical Journal.*

THE CHOLERA IN SPAIN.—A press cablegram states that the total number of new cases of cholera in Spain on Monday last was 1700 and of deaths from the disease, 797.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

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ORIGINAL LECTURES.

FLOATING KIDNEY.

A Clinical Lecture delivered before the Post-Graduate Class at the Jefferson Medical College.

BY JAMES C. WILSON, M.D.,
INSTRUCTOR IN PHYSICAL DIAGNOSIS AND ATTENDING PHYSICIAN AT THE HOSPITAL.

GENTLEMEN: I bespeak your attention to-day to a group of cases which are by no means the less interesting nor always the less difficult of diagnosis because they occupy the undefined border-land between health and disease. I refer to those cases in which the problem of diagnosis arises from actual displacement of the viscera. As compared with the number of patients suffering from positive disease which will come under your observation, the individuals subject to conditions of this kind will be few, indeed. And perhaps for this reason alone these conditions are especially worthy of your attention; just as comets, which are not always more conspicuous than the other heavenly bodies, especially interest astronomers by reason of the infrequency of their occurrence as well as by reason of the eccentricity of their orbits. But these comparatively rare conditions are not only often difficult of diagnosis, they also frequently occasion serious secondary lesions, and the gravest consequences to health.

In general terms, displacement of the organs of the body—aside from such changes of position as are secondary to pathological processes in adjacent parts—may be referred to two principal groups. First, those due to some departure from the usual order of development. This is seen in hetero-taxia, where lateral transposition of one or more or of all the organs may occur. To this group are also to be referred those cases in which the testes are permanently retained in the cavity of the abdomen—cryptorchidism; and second, that group of cases in which organs have become dislocated in consequence of the relaxation or giving way of the normal tissues of support. This group includes (*a*) herniæ of all kinds, in which there is local failure of the walls of cavities conjoined with elongation of those anatomical reflexions of tissue which form the visceral ligaments, and (*b*) cases of the latter lesion alone, whereby certain of the viscera are permitted not only to depart from their normal sites under the influence of gravity and various pressures, but also to move more or less freely around, and hence come to be termed movable or floating organs.

Owing to their peculiar anatomical relations, the kidneys are of all the organs the most liable to this form of displacement, and I am fortunate in being able to present to you for examination this patient who has been for some time under my observation, and who presents for your study an excellent example of the condition known as movable or floating kidney.

The patient who has been before my classes on previous occasions, is aware of the character of her trouble, good-natured and intelligent; moreover, her general health is, in consequence of treatment which we have advised, much better than for a long time, and she submits willingly to such manipulations as are necessary to demonstrate to you the physical signs of her abnormal condition.

She is a married woman, 35 years of age, the mother of seven children, of whom the youngest is two and a half years old. Shortly after the birth of her last child she noticed on the right side of the abdomen near the median line and above the level of the umbilicus an oblong, regular, slightly crescentic tumor, measuring in its vertical diameter about six inches, in its lateral diameter about two inches and a half. This tumor, the outline of which can be distinctly felt through the relaxed abdominal walls, is of moderately firm consistence and somewhat tender upon manipulation. Its concavity presents toward the median line and backward. It is freely movable within certain limits, and can be displaced an inch or more toward the right and as far toward the left as the median line. In the erect posture it occupies a position somewhat lower than that which it assumes when the patient lies upon her back. In the latter posture it is possible by gentle manipulation and pressure upward and backward to cause the tumor wholly to disappear, only, however, to become again evident when the patient assumes the erect position. Physical examination reveals no pathological enlargement or displacement of the organs of the body commonly accessible to this method of investigation. Percussion, however, in the lumbar region near the spine elicits upon the right side a percussion note somewhat more resonant than that of the corresponding region upon the left side. Inspection and, still more satisfactorily, palpation indicate slight flattening of the right side in this region as compared with the left. Upon causing the tumor to disappear as above described, all these physical signs vanish. Light percussion over the tumor elicits dulness, more forcible percussion tympanitic resonance analogous to, but less intense than that elsewhere over the abdomen. Careful chemical and microscopical examinations of the urine on several occasions have established the fact that there is no disease of the kidneys. For the rest, as I have already stated, this woman's health is at present fairly good, much better than for several years, and the presence of this tumor no longer occasions the physical distress and mental anxiety that it formerly did. The explanation of this important change in the patient's symptoms bears directly upon the etiology and general management of such cases. Some months ago her health reached the lowest point in a life of unremitting hard work and rapid childbearing. She was anæmic, weak, much troubled with vague and with definite pains, the latter being constantly present in the back and pelvis, and accompanied with a constant sense of tension and pressure. Pains of a dragging and teasing character were

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associated with the presence of the tumor, itself a constant source of anxiety, its nature being then unknown to her. She suffered also from abundant leucorrhœa and a tormenting frequent desire to pass urine. The tumor was at that time almost constantly present, and if it disappeared upon assuming the recumbent posture or under the manipulations of our examination, it was only for a brief time. Not only is her general health much improved in all respects, as you perceive, but the tumor itself as she tells us, is no longer a source of mental anxiety to her, nor, indeed, of any very great physical suffering. Nay, more, she assures us that it can be caused to disappear for long periods, and on one occasion recently was not present for three weeks. It is, however, apt to reappear upon efforts of lifting and particularly in carrying heavy weights up stairs.

Her improved physical condition is due to the fact that an important uterine lesion, the real cause of her more serious symptoms, was at that time discovered and relieved by operative measures. This lesion consisted in extensive bilateral laceration of the neck of the uterus with marked ectropion of the cervical mucous membrane and hypertrophy. The operation was performed by Dr. C. M. Wilson, at the Nurses' Home, and was in every respect a complete success. The patient was kept upon her back for three weeks and was treated with small doses of strychnia in Basham's mixture, having at the same time a generous and wholesome diet. In the course of time the anæmia, the feebleness, the general and localized pains, the leucorrhœa ceased, and the condition of the patient is, she declares, now better than it has been for several years.

The disposition on the part of the kidney to retain its normal place is due to the higher position of the uterus since the operation, and to the improved tonicity of the abdominal walls, which the general improvement in health has brought about.

With this improvement of her physical condition, there has been a remarkable gain in the patient's mental state. The removal of the thorn in the flesh, the three weeks' rest in bed without toil, without anxiety, with plentiful food, did much for her. Moreover, her mind is at rest concerning the nature of the tumor, which she now knows is not, as she formerly feared, a cancer.

Movable kidney may be congenital or acquired. When congenital, it is due to the anatomical anomaly of elongated renal vessels and the existence of a mesonephron. When acquired, the absorption of the encapsulating fat resulting from acute or chronic sickness, congenital laxness of the posterior peritoneum and relaxation of the abdominal walls, such as is usually present in women who have borne several children, must be looked upon as favoring causes. The much greater frequency of movable kidney among the laboring classes gives color to the supposition that the lifting and carrying of heavy weights tend to establish the condition in individuals otherwise predisposed to it. Movable kidney is far more frequent in females than in males, the proportion being six to one. It has been observed in childhood and adolescence, but the greater number of cases occur in women during the childbearing period. The right kidney is displaced much more frequently than the left, the proportion being nearly five to one, and less frequently both kidneys are displaced. The displaced kidney is not necessarily altered in structure, but may be affected by malignant, fatty, or other degeneration. It is movable in the segments of circles of which the radii correspond to the length of the renal vessels, but it occasionally happens that in consequence of local peritonitis, it contracts adhesions to contiguous organs and becomes fixed. When the abdominal walls are sufficiently thin palpation reveals the characteristic renal outline of the tumor, and, in some instances, the pulsation of the renal artery has been detected. The difficulties of diagnosis presented by a kidney only slightly displaced, or in individuals with thick abdominal walls, are sometimes very great. The outline of the tumor is usually greater than that of the normal kidney, a fact readily explained in the absence of actual enlargement of the organ by its being invested by the posterior layer of the peritoneum and the subserous connective tissue. The most common symptoms are a sense of weight or dragging in the position of the tumor, to which are often added dull, radiating, neuralgic or colicky pains, all aggravated by movement and exercise. Dyspeptic symptoms are also commonly present, and nausea is by no means rare. Mental depression and anxiety, as has already been pointed out, are frequent and important symptoms.

The prognosis as regards life is favorable, as regards permanent relief, unsatisfactory.

The treatment, by a sort of contradiction of terms, is more satisfactory than the prognosis, for while you cannot relieve the condition, you can do much to make it bearable. In the first place, you must make your patient understand the nature and character of the tumor, in order to relieve his mental symptoms; in the second place, associated causes of ill-health must be removed. The patient before you affords a striking illustration of the importance of this course. As anæmia and inanition are very frequently present, a generous diet and the use of iron are indicated. As the subjects of this condition are frequently overworked as well as underfed, rest and the avoidance of the more toilsome occupations are, if possible, to be secured. You will find in your text-books abdominal bandages, variously padded, recommended to secure the kidney in its position, an object in which for the most part they utterly fail. If the symptoms be such as to wear the patient out and to incapacitate him for self-support and enjoyment of life, or if the displaced organ be the seat of malignant or suppurative disease, surgical interference may become necessary. In the former case, whether the displaced organ, free from disease, should be extirpated—nephrectomy—or fixed in the loin—nephrorrhaphy—is still an open question in surgery. In the latter case, extirpation is the only resource, and nephrectomy is, as you know, even under favorable circumstances, one of the most fatal operations of surgery.

ORIGINAL ARTICLES.

EXENTERATION OF THE EYE: A SUBSTITUTE FOR ENUCLEATION.

BY MIDDLETON MICHEL, M.D.,
OF CHARLESTON S. C.

THE memoranda of a case of shot-wound of the eye recently under my care, furnish on this occasion some reflections on a method of operation that

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promises perhaps better results in the future, than the more destructive procedure of enucleation always resorted to at present as the surest means of preventing sympathetic ophthalmia.

The introduction of enucleation into ophthalmic surgery secured, it is true, a very certain arrest of all irritative and destructive sympathetic radiation that otherwise sooner or later inevitably compromise the sound eye; but it has also served to impress us with certain dangers of possible recurrence with which we are familiar, who have often practised this operation. Indeed extension of inflammatory action to the meninges, and even death, that have sometimes taken place consequent upon this operation, explain the anxious solicitude and brilliant anticipations expressed on every hand when first we heard of optico-ciliary neurotomy as a substitute for enucleation; and the regret subsequently experienced when even this method failed to realize all that was promised in its behalf. Not that we mean to imply that enucleation must not indeed be always performed in malignant disease, but simply that for the single object of cutting off. sympathetic communication with the sound eye when the lost one becomes the source of irritation, some less disfiguring yet equally effective operation might be devised.

It is only within a few months that an attempt has been made to destroy all neural connection with the sound eye by removal of the injured organ without opening the capsule of Tenon; without involvement of the orbital cellular tissue, yet still retaining the sclera with its several muscles as a movable stump for subsequent support of an artificial eye.

Such an operation within the few past months has been executed in Hall, and in England, and by myself a few weeks since.

While it may be predicated of this new operation that it is wholly exempt of danger to life, still the few cases recorded so far are only presumptive evidence that it is destined to fulfil all the requirements and indications of a successful operative procedure. The complete destruction of the peripheral relations of long or short ciliaries and optic nerves; the obliteration of bulb by removal of its contents; the uninjured capsules of Tenon and Bonnet; the non-invasion of subconjunctival tissue; in other words, an untouched orbital cavity, yet an eye thoroughly removed, are the salient conditions of a procedure that seems to foreshadow the speediest cure and surest results.

This simple method consists in opening the eye just beyond the sclero corneal border, as in the operation for staphyloma, finishing the abscission of the anterior segment of the bulb with scissors, then with scoop or curette, introduced between choroid and sclera, enucleating the contents of the globe, eviscerating the organ so as to destroy completely all ciliary and optic connection with the sclerotic, arresting hemorrhage, and cleansing the sense-capsule with cotton compresses dipped in a weak solution of corrosive sublimate, then suturing the scleral cup with two or three catgut ligatures, all of which is conducted under a continued antiseptic spray of corrosive sublimate.

So far as the encheiresis involved in this method of operating is concerned, contrasted with enucleation or optico-ciliary neurotomy, the preference, even in the hands of an expert, would seem to be in favor of exenteration or evisceration; but it remains to be ascertained whether the healing process will always be rapid and unattended with any complications. I have had but a single opportunity of testing the results of exenteration which occurred recently, and I will now relate the case:

Isaac S., white, aged 20 years, native of Hamburg, residing in Summerville, S. C., came to me April 3, 1885. Shot in the right eye by a robber who waylaid him in Summerville on the night of the 2d April, the eye became immediately swollen and dreadfully painful. The next morning, the pain being still more severe, and discovering that sight was gone, that not even perception of light remained, he was brought to the city, and being a Jew, he applied as a stranger to the Hebrew Benevolent Society for instruction, and he was sent to me by letter from the President, Mr. M. Triest. He was taken to a private boarding house, and every arrangement made to operate upon him the next day, as he was informed that his eye was lost and would have to be removed lest it should induce sympathetic irritation in the other eye.

Present Condition.—Right eye and eyelids very much inflamed, painful, swollen, ecchymosed; eye black and blue, the effusion of blood extended to the cellular tissue of the face around the orbit. No fracture of bones about the orbit, no emphysema, no wound of the integument about the face or eyelids. A penetrating wound of the cornea, through which a bead of aqueous appeared as often as it was wiped away, was already surrounded by a zone of effused lymph, and occupied the ciliary border. Through the nebulous cornea the pupil irregularly dilated could just be discerned. In the lower and outer half of anterior chamber a white deposit was seen, to which the iris was attached, resembling a hypopyon of some duration. The aqueous was sufficiently clear to permit a view of the iris and pupil, but from the fundus we obtained no reflex, for the vitreous seemed the seat of intraocular hemorrhage, and T. was + 1, which obscured the fundus and interdicted the discovery of any foreign body like a shot. Steady increase of pain and inflammation since Wednesday, the day of the accident; position of the corneal wound near ciliary zone; accompanying chemosis of both lids and ocular conjunctiva; and the loss of nearly all light perception, proved that the eye was irrecoverably lost, either from penetration of a spent shot lodged in some part of the organ, or from laceration of cornea from the same source, consorted with concussion. There were already synechia and atresia of pupil that threatened painful iritic and cyclitic complications at no very distant period, conducting inevitably under these circumstances to monocular destruction and most probably to sympathetic ophthalmia. For these reasons, to save the sound eye and abridge the duration of cure, and his detention in the city, we advised immediate surgical interference, which he requested me at once to undertake.

Exenteration was performed the next morning,

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April 4th. Desirous of testing the efficacy of hydrochlorate of cocaine in an operation of this character, as I had obtained most satisfactory results from its employment in minor operations, instillations of a few drops of a solution of one grain to the drachm, were made to the whole surface of the eye at intervals of three minutes or more for over twenty minutes until local anæsthesia seemed fully induced. The pressure of the speculum upon the œdematous and chemotic lids was, however, not unattended with inconvenience; and after the first steps of the operation through superficial parts were seemingly unfelt, such undisguised pain ensued as we progressed, that we had to suspend the operation and resort to ether to secure the best results for this new procedure. Under a continuous spray of corrosive sublimate solution 1 to 4000, with fixation forceps, keratome, and scissors, abscission of the front of the eye was readily accomplished, when with a vulcanite scoop passed by a to-and-fro movement between the choroid and sclerotic to the fundus evisceration followed, aided by curette and scissors, not without some difficulty, especially in detaching the retina from the canalis opticus.

The vitreous was discolored by extravasated blood, and more hemorrhage occurred from the fundus than I had expected. In the hemorrhagic contents removed, I sought in vain for any trace of shot, which shows how difficult, even impossible, it often is to say whether the foreign body has penetrated the eye. After cleansing the sclerotic cup this was closed by three sutures, and formed an excellent stump. With the exception of soreness, by the next day all circumorbital pain subsided, and although a very considerable chemosis subsequently occurred, protruding the tarsal cartilages and everting both lids, this condition was relieved by free scarification. Cooling applications of lead lotion were substituted now for Warlemont's wash, which had been applied previously to allay the ciliary neurosis and orbital pains with which he had previously suffered.

In staphylomatous eyes, recovery from enucleation is more rapid than from abscission, for in the latter case we leave a scleral cup containing such elements (as choroid, retina, and vitreous) that undergo retrogressive changes, sometimes of a destructive nature even should no suppuration occur; but after exenteration the empty sense-capsule, with no structural element likely to take on inflammation, is supposed to heal with rapidity, as cures are said to occur in two days. I was disappointed to find in my case that this was delayed for two weeks, with no elevation of temperature or pain, but with some secretion of a muco-purulent discharge, though very slight. I am disposed to refer this delay to damage done by the accident and to the extraordinary chemosis that occurred in consequence of the deferred operation. It is possible that had exenteration been immediately performed, convalescence would have ensued in two or three days, for, after scarifying the conjunctiva, the subsidence and defervescence that followed showed the cicatrix of a wound, that, from its firm and insensitive nature, must have been for some time healed.

The superiority of this new operation for cosmetic purposes is apparent in the symmetry of a prominent and rounded stump, moved by each and every one of its muscles in harmony with the other eye, furnishing a solid support for the glass eye.

Enucleation, on the contrary, entails a permanent deformity upon the sufferer, since the empty orbit offers no longer any support to the eyelids, which, falling in, are no longer able to conduct the tears to the puncta, this secretion becoming a source of constant irritation unless the lachrymal gland be also excised.

Again, an irremediable symblepharon often results from cicatricial contractions that interdicts the possible introduction or retention of an artificial eye, a condition that has too often embarrassed our efforts to give this a proper support.

Among the greatest advantages of the new operation, however, is the pleasing assurance that not having opened any of the intravaginal lymph spaces of the orbit, no traumatic pathway obtains for the conduction of morbid products to the meninges or to the brain.

Since the writing out of this case, enabled as I have unexpectedly been to perform another exenteration and this before the members of this Association in session, I shall here detail the additional operation which they witnessed and its results, as constituting, so to speak, a part of our proceedings:

Charlotte C., negro, of about 50 years, domestic, native of this city, living in Henrietta Street, was sent to me April 22, 1885, with a disorganized globe, from a blow of splintered wood. She was cutting wood with an axe, when a splintered fragment flew up, striking her in the right eye. This occurred three weeks ago. On receipt of the injury the sight was immediately lost, and since its occurrence she has had no rest, no ease from the constant pain in orbit, and around the eye, even along the region of the temple. Her sufferings have not diminished, but are increased when she is in the recumbent position. The other eye is now so "weak" that she cannot look at an object without its "watering" so much so that her sight is obscured. She thinks the "sight must be gone in the injured eye, as she cannot see with this eye, not even light." She says "her good doctor has been doing everything for her; putting drops into her eye, but they have done her no good," and she wants me "to take out the eye," which she knows "will ease her, just as if you took a rotten tooth out of her head." This we promised to do to-morrow.

Present Condition.—Phthisis bulbi of right eye. Cornea exhibits a deep leucoma occupying its lower half, iris attached, pupil nearly obliterated and discolored; sclerotic intensely congested; globe prominent and tense, painful on pressure, V = 0; circumocular chemosis; epiphora; orbital and temporal neuralgia.

Operation was performed April 23d, before members of the Association, at 12 o'clock. Exenteration was again followed by considerable bleeding as in my previous case, controlled by lint and ice. Chloroform was administered, sclera sutured, and cold compresses applied. Globe was found disorganized

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by lymph deposits, and iris adherent to cornea in part.

April 24.—Pain has greatly disappeared, though still sufficient to disturb her rest. No appetite, temperature normal, no discharges on dressing; cold compresses to be continued.

25th—Condition the same. Œdema about upper lid. Considerable serous chemosis. Scarified conjunctiva freely. Compresses dipped in Goulard's lotion and tr. opii continuously applied.

26th.—Œdema of upper lid considerable. Chemosis so great that it projects entirely out of orbit; scarified again.

28th.—No pain whatsoever, up and moving about. Scarifying has not notably subdued the swollen conjunctiva.

30th.—Lid less swollen. Chemosis slowly receding. Lotion continued.

May 7.—To-day two weeks chemosis considerable; no apparent inconvenience from exposure of protruded conjunctiva to dust and air.

13th.—Turgescence of mucus much decreased, though still sufficient to conceal the sutures, which, after search, were found firmly attached to a remarkably bulbous sclerotica, that had by no means collapsed; the plica semilunaris projects, discolored at inner canthus. On drawing upon these sutures a prominent and resistant bulb, T = 2, still readily determined by the touch, showing that, as yet, no shrinkage to any perceptible degree, has occurred, though this is three weeks since the operation. Pressure on upper eyelid when closed discovers the globe very easily, as it moves in different directions drawn by the muscles. The sutures were removed to-day.

A feature of constant attendance upon these two operations was the remarkable chemosis ensuing within a few days, so considerable that the conjunctiva bulbi protruded entirely beyond the palpebral fissure, completely burying the lower lid, and concealing all trace of the sutured bulb. This condition, together with an extensive œdema of upper lid, gives an unusual aspect to these cases, unlike what is seen in any other operation upon the eye.

Unattended by any kind of discharge, pain, or elevation of temperature, that would liken this appearance to an aggravated form of purulent ophthalmia in infants, I am disposed to regard the occurrence as peculiarly characteristic of the operation of exenteration; so much so that were I in presence of an œdematous upper lid, beneath which projected a conjunctival intumescence of considerable size, constricted, as it were strangled, at the palpebral fissure, without reactionary process, and without discharge, I should feel no hesitancy in declaring that the eye had been eviscerated.

This repeated occurrence of so exaggerated a chemosis arrests attention, and is suggestive of a perfect explanation, even demonstrative of the whole subject of conjunctival connections and actions.

Chemosis is not always the declaration of hyperæmia. In the instances before us the chemosis is a serous, not a vascular, infiltration of the conjunctiva; consequently is void of inflammatory heat, of pain, or of the purulent or muco-purulent products of inflammation; it is a simple infiltration of serosity beneath the loose, serous, cellular tissue of the ocular conjunctiva, the aponeurotic arrangements of whose retrotarsal folds retain the hypersecretion within the anatomical limitations of this part of the orbit, free to move extraorbitally to an almost unlimited extent, but checked in any retrogressive tendency towards the orbital cavity by the firm orbital fascia in this region.

In such an unsightly turgescence there is, then, no indication of alarm, no threatening of danger.

But, why should this excessive chemotic œdema occur after exenteration? is the question proposed by those who witnessed this phenomenon twice thus regularly produced—a phenomenon differing essentially from the partial and asymmetrical swelling of the conjunctiva from other surgical interferences upon the globe.

This question seems of interest sufficient to call for the reply that suggests itself at this juncture. When we recollect the importance of shape and dimensions to the eye as a dioptrical apparatus, where the slightest deviation, even of a fraction of a line, must of necessity vary its optical focus, one will fully appreciate the axiomatic truth, that *the eyeball never changes its form.* For the maintenance of this physiological condition a normal tension of the eyeball is recognized, and an equable pressure in its vicinage, and throughout the whole orbit is of paramount importance; but, when this pressure is suddenly and greatly disturbed, indeed wholly abolished by emptying completely the entire ball; the great change that immediately ensues in the perioocular circulation explains the passive effusion which commences at once, which, independent of all reactionary influences of an inflammatory nature, finds its readiest vent beneath the serous cellular tissue of the preorbital region. This sudden abolition of all ocular tension, the obvious result of gutting the eyeball, produces, mechanically, a greater filling of all the orbital vessels in vacuo; and this leads, perhaps, to the chemosis that so rapidly ensues.

Whatever be the proper explanation of this occurrence, however, it certainly is the most remarkable feature as a sequel to this operation. Nor does it rapidly disappear, since in my first case it took two weeks to subside; and in the second case, now under consideration, being the third week of the operation, it has by no means vanished. I do not, therefore, understand how cures have been reported to have occurred within two or three days.

Another point is the hemorrhage that persists for awhile after evisceration is completed; welling up from the empty sclerotic to an extent far beyond what I could have supposed probable, from the severance of such inconspicuous vessels as the central artery of retina and ciliaries. Yet, here again we must find an explanation in the anatomical peculiarities of the part. These vessels, however small they be, perforate an inextensible fibrous capsule, and, while imprisoned within their fibrous attachments to the sclerotic, are held patent and unable to retract. Trifling as this circumstance may seem, when applied to such minute vessels, yet in other situations in the body we know it to be often of

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great import if not controlled by pressure, and even by the application of ice, to both of which we had recourse on these occasions, to avoid a loss of blood out of all proportion to the simple nature of the operation.

Again, another question connected with this procedure is, What becomes ultimately of the emptied sclera? Will it really constitute the prominent and permanent support for prothesis, which is claimed for it? Or does it collapse, and, through shrinkage, become atrophied? These are questions that remain to be determined in the future. So far as my personal experience extends, which is at present six weeks since operating upon Case I., I have discovered that a globular mass remains, exhibiting a healthy non-vascular sclerotica of remarkable firmness, that rolls under pressure like the ball itself, turned by its muscles as each is called into action, strikingly resembling the bulb in all its entirety.

It is possible that the sclerotica, still nourished by its proper vessels, pours out exudates that subsequently become, through fibrillation, an organized body of fibrous structure, but little smaller than the normal globe, that long will exist as a firm, well-nourished stump, sustaining the lids in proper relation to the tear passages, since we have ascertained that this secretion reaches the puncta safely, and that none overflows the cheek in the case referred to.

In the gunshot injury above detailed, as no shot was detected, we see that phthisis bulbi resulted from simply a glance shot that incised the cornea, and produced destruction of the eye by concussion, lodging neither within the organ itself nor within the orbit; but, falling short of this, should a shot become buried in the orbital cushion of fat, harm would not necessarily result. Inflammatory processes of the orbit are not of common occurrence. Sympathia never originates but from ciliary or optic sources. We see foreign bodies of extraordinary nature retained indefinitely in the vicinage of the bulbus oculi, encapsulated in the fat cushion, without giving pain to the subject, who remains even unconscious of their presence.

We could rehearse many instances of this kind, but will recall only two that are memorably known to all oculists:

The first is Clarke's case, recounted by Carter, of Stroud, in which piece of a hat-peg of cast-iron, "measuring three inches and three-tenths in length, and weighing twenty-five scruples," was extracted from the orbit of an old man of seventy-three years of age, after a period of impaction of not less than ten, and probably even twenty, days,—the man recovering without a bad symptom.

The second is the Nélaton and Desmarres's yet more famous case, in which the former surgeon removed from the orbit the broken-off ivory handle of an umbrella that had lain embedded therein for three years unknown to the young man himself, and to the celebrated oculist Desmarres, who failed to discover any foreign body at the time of the accident, though the ivory handle measured "one inch and five-eighths in length, and half of an inch in thickness." This patient also left the hospital with "vision improved, and with the fistula nearly healed."

A small shot that has impinged upon, or that has even traversed the eyeball, may therefore safely remain embedded in the deeper parts of the orbit with little trouble; but, should symptoms of *sympathia* arise, this circumstance would in nowise interdict the operation of exenteration.

These, then, are some points of interest suggested by this novel operation of exenterating or eviscerating the eye, that have induced me to bring before your notice a modified surgical procedure in ophthalmology but little known as yet even to specialists.

DISINFECTANTS.

PRELIMINARY REPORTS OF THE COMMITTEE ON DISINFECTANTS OF THE AMERICAN PUBLIC HEALTH ASSOCIATION.

XIII.

DISINFECTION WITH MINERAL ACIDS.

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DISINFECTION with mineral acids in one form or another, has long been practised. Sulphurous acid was used by the ancient Greeks in the purification of their temples after sacrificial offerings had been made. In 1773, Morveau recommended the vapor of hydrochloric acid produced by the action of sulphuric acid on sodium chloride. In 1780, Smyth began the use of nitrous acid vapor as a disinfectant. During the present century, many experiments have been made for the purpose of determining the value of the mineral acids as disinfectants, both in liquid and in vapor form. It is the purpose of this paper to review briefly these reports, and to ascertain what conclusions may be drawn therefrom. Since sulphurous acid has already been discussed in this connection, no further mention will be made of it here.[1]

Hydrochloric acid.—Dougal[2] found that vaccine virus exposed under a bell-jar of a cubic foot capacity, for twenty-four hours, to the vapor of the acid became inert. After exposure, the lymph was mixed with glycerine and water, and the reaction of the mixture (acid) was noted. The mixture was then hermetically sealed in tubes, and so kept until used. Dr. Dougal believed that the effectiveness of the vapor was due to its rendering the virus acid. In proof of this he gives the following tabular statement of the reaction of the lymph and glycerine mixture used in his successful and unsuccessful vaccinations after exposure to different agents:

Successful vaccination. Virus not destroyed.	Reaction of the lymph and glycerine mixture.	Vaccination not successful. Virus destroyed.	Reaction of the lymph and glycerine mixture.
Carbolic acid vapor.	Neutral.	Chloride of lime.	Acid.
Carbolic acid.	"	Sulphurous acid.	"
Chloroform.	Alkaline.	Nitrous acid.	"
Camphor.	"	Glacial acetic acid.	"
Sulphuric ether.	"	Hydrochloric acid.	"
Iodine.	Neutral.		

[1] THE MEDICAL NEWS, March 28, 1885.
[2] Glasgow Med. Journal, vol. 5, p. 166.

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Commenting upon the above table, Dr. Dougal states: "These results *per se* are singularly and suggestively explicit. They show that the mixture of lymph and glycerine of the successful vaccinations was either neutral or alkaline; while that of the unsuccessful was, without exception, acid. Hence, volatile acids, or a volatile body causing acidity by chemical affinity, as the chlorine from the chloride of lime, which produces hydrochloric acid and free oxygen, are the best destructives of the active properties of vaccine lymph, and therefore *a priori* of variolous matter and other zymotica.[1] The same theory is insisted upon by Dr. Dougal in a later paper.[2] Results with hydrochloric acid vapor similar to those obtained by Dougal, were reached by Braidwood and Vacher in eight experiments.[3]

Koch[4] ascertained by cultivation that anthrax spores were destroyed after ten days' exposure to a two per cent. solution of the acid; but that exposure for from one to five days failed to destroy the spores.

Dr. Sternberg, in some experiments made for this report, found hydrochloric acid to fail as a disinfectant when used in the ten per cent. solution, and to be successful when the strength was increased to fifteen per cent. Each c.c. of the acid used by Dr. Sternberg contained 0.395 grain of HCl.

Sulphuric acid.—Koch[5] noticed diminished development of anthrax spores after exposure to a one per cent. solution of sulphuric acid for twenty days. The test was by cultivation. Salmon,[6] experimenting upon the micrococcus of fowl cholera, found one-half per cent. solution of sulphuric acid successful as a disinfectant, tested by inoculation; but one-fourth and one-eighth per cent. solutions unsuccessful, tested by cultivation. Sternberg[7] states that "sulphuric acid destroys B. termo and the two species of micrococcus experimented upon in the proportion of 1 : 200; but a four per cent. solution failed to destroy the bacteria in broken-down beef tea (old stock), doubtless because of the presence of reproductive spores. The multiplication of the bacteria mentioned was prevented by the presence of this acid in a culture solution of 1 : 800." Dr. Sternberg has given the per cent. of sulphuric acid necessary to insure disinfection at eight. Each c.c. of the acid used contained 1.480 gramme H_2SO_4.

Nitrous acid. - Dougal[8] found that vaccine lymph exposed to nitrous acid under a bell-jar of one cubic foot capacity for twenty-four hours, was rendered inert. The lymph was treated as given under hydrochloric acid, and the action was supposed to be due to rendering the lymph acid.

Notler[1] has experimented upon nitrous acid as an aërial disinfectant. However, his conclusions are not wholly trustworthy, as he considered the bacteria destroyed when their motion was only arrested. He says: "I believe the full effect of the agent to be produced when there is arrest of motion, with complete precipitation and disorganization of the bacteria, and I have endeavored in each case to look for this result." One hundred c.c. of putrid beef infusion in saucers was placed in a chamber, of a cubic capacity of fifty-three feet, with two ounces of copper wire, and fifty c.c. of concentrated nitric acid, yielding 0.35 per cent. of nitrous acid. Soon the bacteria became less active, and in forty-eight hours the activity was still further diminished, and a heavy precipitation of the organisms was noticed. The infusion was free from odor. On the third day, there was no tendency to the further development of bacteria and the liquid was quite inodorous. At the end of a week there was no further decomposition and the infusion was found to be strongly acid.

Sternberg[2] found that exposure of vaccine virus for six hours to an atmosphere containing one per cent. of nitrous acid vapor, destroyed the germs; also that the bacteria of putrid urine were destroyed when exposed on filter paper for six hours to an atmosphere containing one-half per cent. of nitrous acid gas.

Nitric acid.—Dr. Sternberg has ascertained that nitric acid fails as a disinfectant in solutions of five per cent.; but is effectual in solutions of eight per cent. Each c.c. of the acid used contained 0.819 gramme of HNO_3.

Chromic acid.—Koch[3] ascertained that anthrax spores were destroyed by exposure to one per cent. solutions of chromic acid after from one to two days.

Osmic acid.—Koch[4] found by cultivation that anthrax spores were destroyed by exposure for twenty-four hours to one per cent. of osmic acid.

Practical considerations of the use of the mineral acids as disinfectants. The action of ten and five per cent. solutions of sulphuric, nitric and hydrochloric acids upon lead pipes was tried with the results given in the accompanying table. Weighed pieces of lead pipe were placed in the dilute acids, and the loss was determined by subsequent weighings. This represents a more powerful action than

Date of weighing and changing solution.	No. of days in the solution.	10 per cent. H_2SO_4		5 per cent. H_2SO_4		10 per cent. HNO_3		5 per cent. HNO_3		10 per cent. HCl		5 per cent. HCl	
		Weight of pipe.	Loss.	Weight of pipe	Loss.	Weight of pipe.	Loss.	Weight of pipe.	Loss.	Weight of pipe.	Loss.	Weight of pipe.	Loss.
		Grams.	Grams.	Grams.	Grams.	Grams.	Grams.	Grams.	Grams.	Grams.	Grams.	Grams.	Grams.
Jan. 30, 1885.	0	53 120	. .	52 990	. .	53 000	.	53 000	. .	53 000	. .	53.000	.
Feb 2, "	3	53 120	00	52 990	00	48 500	4.500	51.300	1.700	52.930	0 070	52.990	0.010
Feb 3, "	1	53 120	00	52 990	00	44 220	4.280	49.350	1.880	52 900	0.030	52.970	9.020
Feb 4, "	1	53 120	00	52 990	00	41 130	3.090	47 365	1 985	52 860	0 040	52.925	0.045
Feb 6, "	2	53.120	00	52 990	00	34 520	6.610	44.400	2 965	52 845	0 015	52.920	0.005

[1] Loc. cit., p. 168.
[2] British Med. Journ., vol. 2, p. 726, 1879.
[3] Life History of Contagium.
[4] Mittheilungen a. d. Kais. Gesundheitsamte, B. I. S 263.
[5] Loc. cit, p. 264.
[6] Report Dept. Agriculture, 1883.
[7] Bacteria, p. 233.
[8] Loc. cit.

[1] Dublin Journ. Med. Sciences, vol. 71, p. 508.
[2] National Board of Health Bulletin, p. 287.
[3] Loc. cit., S. 264.
[4] Loc. cit.

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would result simply from the rapid passage of the disinfectant through the pipes; but the table gives results which would be obtained by the solution standing in a trap. At the time of each weighing, the dilute acid was replaced by a fresh portion.

The experiments were continued until the nitric acid had completely destroyed the pipe; but as the results are sufficiently shown by the above figures, it is unnecessary to give the table in full. After a number of days there was a slight increase in the weight of the pipes placed in the sulphuric acid solutions. All the acids used were of the commercial grade. We also have figures showing the action of the dilute acids upon iron pipes; but as this action is rapidly destructive with all the acids, it is unnecessary to give the figures. In order of disintegrating effect upon iron pipes, sulphuric acid acts with most vigor; while there is not much difference in the effects produced by the same strength solutions of nitric and hydrochloric acids. The action upon zinc is in the same order as that given for iron; while the solvent action of nitric acid on tin was found to be greater than that of either sulphuric or hydrochloric acid.

CASE OF ANOSMIA

ASSOCIATED WITH BONY STENOSIS OF VOMER WITH CONTRACTED INFERIOR MEATUS OF THE NOSE; OPERATION BY DRILLING, FOLLOWED BY IMPROVEMENT IN SMELL.

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MR. T., aged twenty-five years, grocer, applied to me on the 7th of September, 1884, complaining of loss of smell in both nostrils. He was in good health, is married, and has several children, all of whom are healthy. He stated that for several years his chief occupation in the grocery business was in testing and classifying cargoes of bacon, much of which was rancid.

In July he had gone north on a pleasure trip and had spent the month in the White Mountains. He had not previously experienced any difficulty in the sense of smell. He returned and resumed his occupation about the first of August, and soon afterwards had examined and assorted a large lot of very bad bacon. Soon afterwards he noticed that the sense of smell was gradually lessening, and in the course of the month he could not detect odors of any kind. On some days smell would be present and last for a few moments, and not come back during the day. Sometimes it would last an hour in the morning entirely disappear for hours, and again return in the afternoon for a few moments; at other times, a day or two would pass without his being able to detect smell of any kind.

Upon examination I found some general congestion, and slight thickening of the mucous membrane of the nasal cavities on both sides. On the right side the meatus was somewhat contracted, but did not prevent a free circulation of air. On the left side there was a bony osteosis of the vomer infringing upon the inferior turbinated bone, and practically closing the inferior meatus; the middle meatus was larger than usual, and the superior was of normal size. There seemed to be no interference with the current of air on this side. The patient breathed as freely on this side as on the other.

Supposing the case of idiopathic origin, the sulphate of strychnia in doses of one thirty-second of a grain, with five grains of muriate of ammonia, three times a day was ordered, with directions to suspend his occupation as meat tester. The nasal cavities were also daily sprayed with the saturated solution of borax, and afterwards with a solution of iodine, iodide of potassium, and glycerine, with the view of relieving the congestion of the mucous membrane. This course of treatment was kept up till the 17th of September, with little or no improvement. Being about to leave the city for a month, the dose of strychnia was increased to one twenty-fourth of a grain.

I did not see the patient again till the 17th of October. He had continued his medicine regularly till the 1st of October without material change in his smelling, and for the past sixteen days he had stopped it. He stated that during the month smell had occasionally returned about midday for a short time and then "went off." Sometimes he could smell on one side and not on the other, and sometimes both sides "worked well." I had frequent opportunities to test the correctness of this statement. On the 15th it was good and lasted all the morning, Thursday it disappeared; Friday (to-day), it was present early in the morning and lasted two hours. At my office at 2 P. M. he could smell hartshorn, but not chloroform or iodoform. Strychnia in doses of one twenty-fourth of a grain, and with five grains of ammonia, was resumed three times daily, and electricity was applied every second day, for five minutes at a sitting, one pole being applied to the superior and middle turbinated bones. The cavities were also sprayed with solution of borax or soda bicarb., and iodine in some of the varied formulas recommended, was applied either by spraying or by the probe with cotton.

Oct. 30.—No perceptible change; smell returns irregularly as before, sometimes lasting one or two hours, or it may be only momentary. Same treatment continued, and I occasionally I gave him sittings of ten minutes in using electricity; it only tired his endurance without doing good.

Nov. 2.—Yesterday smell lasted six hours and seemed normal, he could detect all kind of odors; it left after dinner, did not return till breakfast to-day, merely momentary.

From the 13th to the 30th of November, there seemed to be gradual though variable improvement, he was worse when he took cold in the head.

Dec. 5.—No practical improvement, previous treatment stopped: suspecting that latent specific causes might be at the bottom of the difficulty, the patient was now put upon a course of mercury and iodide of potassium in the usual doses for a month without any notable change in his symptoms. Notes of the case would apply equally as well for the seventh of September, 1884, as for the first of January, 1885.

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During January, February, and to the middle of March, being sick myself, treatment was practically suspended, except that the patient was directed to keep the nasal passages dilated with a solution of iodine, iodide of potassium, and glycerine, passed up with a probe armed with absorbent cotton.

On April 1st, his condition was practically unchanged, I had often suggested to him the removal of the stenosis of the vomer on the left side by drilling, but he would not consent. I had not urged it because, while the inferior meatus of the left side was practically closed, the middle and superior meati were large, and admitted a free current of air which had served the purpose of olfaction all his life.

All remedies having failed, general and local, I again suggested the propriety of removing the stenosis by operation; to this he acceded, and I performed the operation with Wagner's burrs attached to a dental engine, in the presence of several members of the profession. I first injected twenty minims of a four per cent. solution of the muriate of cocaine under the mucous membrane covering the stenosis, and also applied it freely over the outer side.

The operation was comparatively painless, with little hemorrhage; the inferior meatus was bored out in a few minutes to its normal size admitting the largest sized Wagner's nasal probe.

April 22.—The after-treatment consisted in cleansing the parts daily.

Twenty-two days have passed since the operation; the sense of smell has steadily improved on both sides in acuteness and persistency, and has been present nearly all the time for the past ten days. The patient is sanguine about the ultimate restoration of this important function.

Remarks.—I have described the above case of anosmia somewhat at length and the treatment adopted, because I think it presents some marked peculiarities differing from any case of the kind which has come under my observation, and from the usual class of such cases described in general or special treatises upon the subject.

With regard to the etiology of this affection, the causes are either centric or eccentric. Under the first there may be congenital deficiency of the olfactory nerve, or the centre of olfactory conduction or excitability may be inert or defective. Hemiplegia is often the direct cause of anosmia, and it is sometimes dependent upon hysteria difficult of explanation, and often present among the insane. To these may be added the various conditions of impaired function of smell arising from traumatic causes involving fracture of the ethmoid bone and injury to the olfactory bulb, some temporary, some permanent, owing to the extent of the injury inflicted at the time, and the powers of nature to repair the injury.

As an instance of traumatic anosmia, I attended a gentleman in January, 1878, who was shot by a pistol-ball on the border of the left superciliary ridge. For two days he had symptoms of concussion with nausea, after which he recovered. I suspected fracture of the orbital plate of the frontal bone, extending backwards to the sphenoid or ethmoid bones. Subsequent symptoms pointed to the ethmoid and olfactory bulb. He had anosmia and impaired taste until the following October (ten months). Since then he has continued well.

Among the eccentric causes we have an equally long list producing temporary or permanent loss of smell, nasal catarrh in the second and third stages, syphilitic ozæna, or the constitutional effects of syphilis not manifested by disease of the nasal mucous membrane, apparently affecting directly the olfactory bulb and nerves, the latter improving under an antisyphilitic course of treatment.

Tumors of the nose in their various forms, bony stenosis of the septum interfering with admission of air into the middle and upper meatuses, foreign bodies producing chronic thickening of the mucous membrane, with sanious discharges and necrosis of the turbinated bones.

As an instance of anosmia from foreign body in the nose, with necrosis of the inferior turbinated bone, I published a case of this kind in the *Transactions* of the South Carolina Medical Association for 1881, under the title of "Chronic Ozæna of Sixteen Years' Standing; a Quartz Pebble Impacted in the Inferior Turbinated Bone; Removal of Turbinated Bone; Recovery."

Wagner (*Diseases of the Nose*) mentions strong injections in the treatment of chronic rhinitis, and the long-continued use of the nasal douche, as causes of anosmia. He also relates a case, reported by Notta, of a person whose sense of smell was *totally* destroyed by superintending the cleansing of a sewer from the bad odor, and another occurring in his own practice of a flour inspector, who had lost the sense of smell for flour, while his sense of smell was *perfect for other odors*.

The last two cases are similar to the one reported above, the loss of smell being caused by the effect of odors upon the terminal branches of the olfactory nerve. In Notta's case smell was *totally* destroyed by the noxious odor of sewer gas suddenly inhaled. In Wagner's the loss of smell was confined to a *particular* odor. In the case I have described the party dated his loss of smell to sampling a particular cargo of meat after having returned from a pleasure tour of a month. His loss of smell, therefore, could not have been caused by the constant exposure to the bad odor of rancid or spoiled meat as a tester. His case seems to have been one in which the olfactory nerve was overpowered by the odor from a box of spoiled Bologna sausages in the cargo examined, and the deleterious effects upon the peripheral nerves of smell was gradually increased by his occupation.

It would have been amusing, had the consequences not been so serious, to notice the horror with which he spoke of that particular box of "bad Bologna sausages; it beat anything in all my experience, and had to be boxed up as soon as it was opened, and was a complete loss to the house." Another peculiarity of this case which I have not seen mentioned in the books, consisted in the *variability* of the function of smell lasting a few minutes or hours, then disappearing, to return again during the day, or sometimes wanting almost entirely for one or two days, this not being confined to a "professional bacon odor," but to odors of all kinds.

The influence exerted by the bony stenosis existing

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in this case, and causing loss of smell, is questionable, although his improvement was very noticeable after the operation.

The patient had been subjected to local and constitutional treatment for eight months without practical improvement until the operation; but it should be stated that, though not actively engaged, from disability, as a tester of meat, he was all the time in the same building, and exposed more or less to the same odors in a modified form originally causing the difficulty.

Bony stenosis of the nose produces anosmia directly from mechanical occlusion, and is often associated with congenital anosmia, or indirectly by setting up after exposure a chronic rhinitis, and the loss of smell may be gradual. The latter is at first confined to the affected side, but very often extends to the other nostril, and smell on both sides may become obliterated. I have operated four times for the removal of congenital bony stenosis of the septum by drilling, and have now under treatment an elderly gentleman for chronic rhinitis impairing smell, dependent upon the same cause.

I think cases of this kind are more numerous than is generally supposed.

The occlusion may exist at any part of the middle or inferior meatus, but is most common near the anterior nares. I reported my first case to this Association in 1882, and it was published in the *Transactions* for that year; the three others have occurred since. All of them were on the left side, and had chronic rhinitis, with more or less anosmia, and were relieved by the operation.

NOTE.—June 5th: I saw the patient to-day; he reports continued improvement, and considers himself nearly well.

MEDICAL PROGRESS.

THE ADVANTAGES OF PERINEAL INCISION IN THE TREATMENT OF PROSTATIC AND PERIPROSTATIC SUPPURATION.—M. PAUL SEGOND, at a recent meeting of the Société de Chirurgie de Paris, read a paper upon the advantages of perineal incision in prostatic and periprostatic diseases, of which the following are the conclusions:

1. Rectal incision in prostatic abscess is an operation open to the following objections: It must be done without antiseptic precaution; it is insufficient; is dangerous at once on account of the hemorrhage which may result, and dangerous as to its results by its liability to produce urethrorectal fistula, which is frequently incurable.

2. The transverse perineal and prerectal incision presents none of these disadvantages. Strict antisepsis may be practised. The operation insures the complete drainage of pus, obviates the danger of hemorrhage, and when the abscess communicates with the urethra—at once, or later in the history of the disease, the gravity of the prognosis is diminished by the avoidance of a urethrorectal, and the creation of a urethroperineal fistula.

3. Extensive incision by the perineum is, therefore, to be preferred when practised according to the preceding rules, in all prostatic or periprostatic suppurations which have a tendency to open elsewhere than in the urethra, and should be resorted to when the perineum is yielding, and the lesions are exactly located above the middle aponeurosis.

The operation is also indicated as a valuable resource in the treatment of serious and intractable cases, characterized by the presence of fistula or of true prostatic cavities communicating with the urethra by an opening insufficient to permit the free drainage of pus, and the cicatrization of the purulent passages.—*L'Union Médicale*, June 16, 1885.

CASE OF VAGINAL ATRESIA WITH PURULENT RETENTION WITH PYOMETRITIS.—DR. J. ROSNER, in *Przeglod lekarski*, 1885, No, 13, reports the case of a girl, aged 18 years, who in November, 1884, came to the gynecological clinic of Prof. Madurowicz for treatment. Previous to this time she had for the most part enjoyed good health, but had never menstruated. Two years previously she began to suffer from abdominal pain, which came on at intervals, and usually continued some days, without vomiting or nausea. For some months preceding her appearance at the clinic, she had suffered continual pain in the abdomen, loins, and lower extremities, and during the last few days had had frequent chills followed by light fever. Examination after emptying the bladder, which extended to the umbilicus, showed the abdomen distended by a tumor of considerable size, which extended the breadth of three or four fingers over the symphysis pubis. The tumor was roundish in shape, the edges smooth, it was wholly immovable, and had a resistance corresponding to the uterus. The external genitals and perineum were swollen, and the labia majora were separated from each other about a half inch. The entrance to the vagina was closed by an imperforate hymen, which was much distended and pushed forward.

The urethra was firmly pushed upward against the pubic arch, so that the introduction of a catheter was very difficult. Fluctuation was plain. After a careful incision made layer by layer, with antiseptic precaution, through the hymen, which was about one-eighth of an inch thick, pus mingled with blood escaped without pressure to the amount of more than a quart, and this result was followed by the immediate relief of the patient. The vagina was irrigated with solution of carbolic acid, and an examination made showed it to be smooth, distended, its walls thickened. The external orifice was the size of a dollar, its edges forming a thick roll. The uterine mucous membrane was puffed and swollen, and the cervical canal contracted.

Rest in bed and irrigation of the vagina with carbolic solution was ordered. In two days the discharges ceased, and the patient left the hospital.—*Centralbl. für Gynäkologie*, June 13, 1885.

THE CLIMATIC TREATMENT OF PULMONARY TUBERCULOSIS.—DR. K. CHODOUNSKY makes the following *résumé* of the points worthy of consideration in the climatic treatment of pulmonary tuberculosis:

1. Contraindication to all climatic therapy is found (*a*) in the existence of high fever; (*b*) in great extension of the tubercular disease, unless its progress has ceased; (*c*) in a debilitated condition which compels the

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patient to remain in bed; (*d*) peritoneal and intestinal complications.

2. Contraindications to an elevated region: (*a*) erethesis; (*b*) advanced anæmia; (*c*) changes due to advanced life, especially of the vascular system; (*d*) an habitually accelerated pulse; (*e*) diminished inspiratory power; (*f*) all fevers; (*g*) pneumonic tuberculosis in all stages; (*h*) chronic miliary tuberculosis with frequent exacerbations; (*i*) laryngeal catarrh and tuberculosis; (*j*) the stage of decay, unless under specially favorably circumstances; (*k*) complications with cardiac and vascular disease; (*l*) disease of the kidneys; (*m*) neuralgia and neuroses of typical nature.

Elevated climate is indicated for hemorrhagic cases as follows: (*a*) in hæmoptysis in the initial stage; (*b*) in light passive hæmoptysis; (*c*) in congestive hæmoptysis after discontinuance of the fever and an interval of eight weeks since the last hemorrhage; (*d*) in hemorrhagic cases with cavities, if the decay and the fever have ceased and no hemorrhage has occurred for a period of eight weeks.

3. Indications for an equable climate are: (*a*) moderate fever in which the temperature does not rise above 100.4° F.; (*b*) tuberculosis in the stage of decay with moderate characteristic symptoms; (*c*) hemorrhagic cases with cavities and moderate symptoms, and an eight weeks' interval since the last hemorrhage; (*d*) congestive hæmoptysis; (*e*) laryngeal catarrh and tuberculosis; (*f*) heart, vascular, and nervous complications for which the elevated regions are contraindicated; (*g*) cases in which irritability of the air-passages exists; (*h*) cases with diminished power of inspiration and an habitually accelerated pulse; (*i*) advanced anæmia; (*j*) advanced age.—*Allgemeine Wiener med. Zeitung*, May 19, 1885.

A CASE OF ALTERNATE PARALYSIS OF PEDUNCULAR ORIGIN.—DR. RAMEY reports a case of alternate paralysis which, during life, exhibited the following characteristics: Incomplete hemiplegia of the right side, and paralysis of the left common motor-oculi. Post-mortem examination revealed the presence of a caseous tubercle the size of an almond, situated in the cerebral peduncle and the left optic thalamus.

Points worthy of note in the history of the case are:

1. Notwithstanding the complete destruction of the optic thalamus, the patient presented no signs of sensory disease, except what were slight and transitory.

This condition is in opposition to those authors who consider the optic thalamus as the centre of sensitive and sensorial perception (Luys, Fournié).

2. The results of the experiments of MM. Brown-Séquard, Budge, and Afasanieff, show that section of the cerebral peduncles determines in animals serious vaso-motor disturbance. In the patient now under discussion there was, from the origin of the affection, a permanent sensation of cold in the right arm, whose temperature was in reality lower than that of the same member of the opposite side, although there was no appreciable difference in the color of the hands or forearms. Only during the last ten days of life did the right hand exhibit any peculiarity, and at this time it became œdematous and of a reddish carmine hue.

3. The researches of Afasanieff and Budge, upon the function of the peduncles, seem to have established a relation between this region and the sphincters of the rectum and bladder. In the case under consideration there was no evident disturbance of the function of these muscles—except at the period immediately preceding death—a time when the general depression of all the vital forces was sufficient to explain the condition.

4. In spite of a relatively gross lesion located in the optic thalamus, and which destroyed a large portion of the superior floor of the peduncle, the spinal marrow presented no trace of secondary degeneration—a condition which seems to prove that the optic thalamus and the superior peduncular floor do not form an integral portion of the cerebral motor apparatus; or, at least, do not have a trophic influence upon the pyramidal fibres.—*Revue de Médecine*, June, 1885.

EXPERIMENTAL INOCULATION OF TUBERCULOSIS AND GLANDERS.—DR. CHARRIN, in an experimental study of tuberculosis and glanders, has determined that inoculation does not prevent glanders; and that, most probably, auto-inoculation in this disease is produced more readily than in the case of tuberculosis. He further holds that, just as in the acute infectious diseases, there are some which ordinarily do not recur—typhoid fever, etc., and others which may be repeated; so, in the chronic infectious diseases, or in those ordinarily chronic, there are some which, like syphilis, cause an immunity to recontagion; and others, as glanders and tuberculosis, which, at least constantly, do not obey this law.—*Revue de Médecine*, June, 1885.

METHOD OF OPERATING IN LAPAROTOMY FOR INTESTINAL OBSTRUCTION.—MR. J. GREIG SMITH gives the following concise rules for the operation of laparotomy in intestinal obstruction:

1. Make the incision in the middle line below the umbilicus.

2. Fix upon the most dilated or the most congested part of the bowel that lies near the surface, and follow it with the fingers, as a guide to the seat of obstruction.

3. If this fail, insert the hand, and carry it successively to the cæcum, the umbilicus, and the promontory of the sacrum.

4. If this again fail, draw the intestine out of the wound, carefully covering it, until increase of distention or congestion, or both in one of the coils, gives an indication that the stricture lies near.

5. If there be considerable distention of the intestines, evacuate their contents by incision, and suture the wound. Never consider an operation for intestine obstruction inside the abdomen finished until the bowels are relieved from overdistention.

6. Be expeditious, for such cases suffer seriously from shock. The whole operation ought to be concluded in half an hour.—*British Medical Journal*, June 13, 1885.

INTRAVENOUS INJECTION OF MILK.—MR. CHARLES E. JENNINGS, after reviewing the current literature on the clinical intravenous injection of milk, and also the results of physiological experiments with such injections, concludes:

1. The intravenous injection of a small quantity of newly drawn milk is harmless.

2. Large injections of milk are fatal, with polyuria as the chief symptom.

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3. The employment of impure, or stale milk, is most dangerous, on the probability that septicæmia will follow the operation.

4. The operation is to be recommended in the later stages of cholera, enteric fever, phthisis, and pernicious anæmia, as a substitute for the transfusion of blood; and, in short, in all cases where transfusion of blood is indicated on nutritive grounds, but where a blood-donor cannot be procured, or where this operation is, for other reasons, impracticable.—*British Medical Journal*, June 6, 1885.

THE SUBCUTANEOUS DIVISION OF THE SPHINCTER ANI.—MR. T. PICKERING PICK, after reporting a case in which spasm of the sphincter ani was successfully treated by subcutaneous incision, says: In thinking over this case, it occurred to me that we had in this simple operation a decided improvement on the one usually performed for that very distressing complaint, fissure of the anus. The usual operation consists in passing a blunt-pointed knife into the anus and cutting outwards through the base of the ulcer, so as to divide the fibres of the sphincter muscle, and this produces a very considerable wound, which always takes from ten days to a fortnight to heal, and sometimes a very much longer period, during which the passage of the motions over the sore causes the patient a certain amount of pain and annoyance, and exposes him to the risk of septic absorption.

The object of this operation is to paralyze the action of the muscle, which by its movement prevents the ulcer from healing. And it will be often found by those who are frequently called upon to perform it, that if the muscle is imperfectly or insufficiently divided, entire quiet is not obtained, and the undivided fibres, though paralyzed for a time, soon recover themselves, and the old trouble reappears. It seemed to me therefore that by subcutaneous division of the muscle we attained three ends: (1) a complete division of the whole muscle, and therefore a more certain result; (2) a small puncture instead of a large wound, and therefore more rapid healing; (3) a subcutaneous wound and less chance of septic absorption.

There is also another class of cases in which I think the operation of subcutaneous division of the sphincter ani may advantageously be resorted to, and that is in the operation for internal piles, whether that operation consists in ligaturing, searing, or crushing them. It has been for some time in my practice, and I have no doubt it is the practice of every one who operates in these cases, to commence proceedings by forcibly stretching and paralyzing the sphincter. There can be no doubt of the great advantages to be derived from this proceeding, for not only does it fully expose the lower part of the rectum, so that it can be thoroughly explored, but it also does away, to a great extent, with the spasmodic pain, which is otherwise such a frequent sequel to this operation. Stretching is performed by introducing the two thumbs into the rectum and thoroughly extending and, no doubt, rupturing some of the fibres of the sphincter ani by separating them in the antero-posterior and lateral directions, using an amount of force sufficient thoroughly to overcome the spasm. For this somewhat unsurgical proceeding I now substitute subcutaneous division, an operation which thoroughly exposes the lower three inches of the rectum, without such laceration and bruising of tissues as forcible stretching must produce, and entirely does away with the pain from spasmodic contraction which, in spite of the stretching, often, in my hands at least, followed the operation.—*Medical Times*, June, 6, 1885.

TREATMENT OF STONE IN THE BLADDER.—MR. REGINALD HARRISON, at the conclusion of an elaborate paper upon the treatment of stone in the bladder, says, in reference to the management of hemorrhage:

The treatment of immediate and secondary hemorrhage in cases of lithotomy, prostatotomy, and cystotomy, has given me much consideration, as in a large experience of these operations instances of these complications have from time to time arisen. When an artery has been divided, and is evidently spouting, it must be tied; this can generally be done with the aid of retractors without much difficulty; to plug a spouting vessel, if it is possible to avoid it, is to court the recurrence of a bleeding. More usually I have noticed, as in section of the prostate and adjacent parts, this bleeding is of a freely oozing nature, as if from spongy textures, but in this way many ounces of blood may be quickly lost. I have invariably noticed in the cases referred to, when the bleeding has been of this oozing nature, how easy it is to control it with the point of the finger introduced and well carried into the bottom of the wound, sometimes even by the finger in the rectum. For the finger in the wound I now (since the fatal case just recorded) substitute a lithotomy tube of a size which precisely fits the wound-cut in the bladder that has been made. I have them made of different calibres, so that they may fit with tolerable accuracy. They are tied into the bladder by the usual perineal band, and drainage through them is carried on by the inner rubber tube, which can be changed at will, and by which the bladder is washed out and the urine carried into a vessel by the patient's bedside.—*Annals of Surgery*, June, 1885.

DIFFERENT VARIETIES OF ORCHITIS CONSECUTIVE TO URETHRAL CATHETERIZATION.—DR. BARETTE, in discussing the different forms of orchitis due to urethral catheterization, reaches the following conclusions:

1. Patients suffering from prostatic disease, or from stricture, are subject to certain testicular complications due to catheterization, the more as their urethral mucous membrane is altered and vascular.

2. The orchi-epididymites which supervene are developed under two different forms: the simple acute and non-suppurative, and the acute suppurative variety.

3. In every case the point of departure is a lesion of the mucous membrane at or in the region of the ejaculatory orifices.

4. The inflammation starting from this point appears to advance along the lymphatic channels of the seminal apparatus, and thus reaches the testicle and the tunica vaginalis testis.

5. The morbid, or healthy condition of the urine, and old or more or less extended alterations of the urinary passages, seem to play an important part in the clinical form of the orchitis, and to determine whether it is simple or suppurative.—*Journal de Médecine de Paris*, June 14, 1885.

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THE OUTLOOK FOR THE CONGRESS.

To those who know anything of the characteristics of the international assemblies of the medical profession, known as Medical Congresses; or of the views of the leading medical men of Europe, whose concurrence is essential to make such meetings interesting or valuable, it must now be evident that the action of the American Medical Association, and of its new Committee, if persisted in, will result in a disgraceful failure.

It is possible that the Association may succeed in gathering one or two thousand men to attend such a meeting in Washington as its Committee proposes; and we will admit that it is possible, though very improbable, that it may succeed in raising sufficient funds to provide for the material part of the performance, but it most assuredly will not be able to induce the presence of a fair representation of the leaders of medical thought and progress from this or any other country.

Nor will the consequences be limited to the fact that the proposed Congress will rank far below those which have preceded it in the importance and interest of the papers presented, and the discussions to which they give rise. Were this all that is to be feared, the matter would be one rather for contempt than for apprehension. Those who decline to sanction the new programme, by refusing to allow their names to appear in connection with it, will lose nothing in reputation among our foreign friends, who will understand and appreciate their motives, and will, at the same time, free themselves from a very considerable amount of labor and responsibility. The danger is to the American Medical Association itself, and to the unity of the profession in this country.

The men who are engaged in original research, and who are best known as those who are contributing to the honor and dignity of American Medicine by their writings and teachings, are not usually active in medical politics or in the supervision of their medical brethren, nor are they given to logrolling and striving for office. For the past ten years these men have been becoming dissatisfied with the tone of the American Medical Association, and while many of them have not formally severed their connection with it, they have nevertheless ceased to attend its meetings. Many of them give their entire interest and work to purely scientific associations such as the College of Physicians and the Academy of Medicine, to pathological societies, or to societies devoted to specialties, in which the scientific physician is not liable to be annoyed and overborne by wire-pulling and loud-voiced demagogues.

The result of this interference with the Congress, and of the evident determination of the leading spirits in this movement to maintain their control over the Association, will be to alienate still further the scientific workers and teachers of the profession, and already we hear rumors of the formation of a new National Society, to meet the wants and wishes of this class. This result will fatally damage the influence of the Association, and it is greatly to be regretted, for the Association has done good, and might do much more if it were conducted in the interests of the whole profession.

The leaders of the new Committee are at present actively engaged in trying to devise some form of compromise which will enable them to retain their own positions, and at the same time prevent further defection, but this cannot be done. The leading members of the profession of the principal cities of the Union have declared their determination not to accept office. The presidents of nine of the Sections, the Secretary-General, as well as a large proportion of the vice-presidents and members of the Councils, have likewise declined to coöperate under the new organization. Self-respect, if nothing else, demands that a committee which has been so thoroughly discredited by the profession at large, and whose inability to organize an International Congress has been completely demonstrated, should at once resign. If its members do not, they fully justify the charge which has been freely made, that they place their individual interests above those of the profession, and that they prefer to see the Congress destroyed than themselves without office.

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BRONCHIAL ASTHMA.

THERE are few affections upon which so much has been written, and in which permanently successful treatment has been so unsatisfactory as bronchial asthma. But it is only by continued, well-directed study of the subject that we can hope to secure that accuracy of knowledge upon which alone must depend a rational and successful treatment.

Considerable attention has recently been given to asthma in some one or more of its modes of manifestations, and apparent advances in pathology and treatment have been attained, both in this country and in Germany. Thus, DR. CURSCHMANN, of Hamburg, recently read a paper on bronchial asthma, before the Congress für Innere Medicin, at Wiesbaden, confining himself to those cases characterized by a sudden or rapidly increasing and equally rapidly declining dyspnœa, having its seat in the smaller air passages, is predominatingly expiratory, and is associated with emphysema and, for the most part, with prolonged expiration.

The cases included in this category he further subdivides into two groups, which he calls primary and secondary, and of which the most important is the secondary. In this class he includes those cases in which the cause of the asthma lies either in a part remote from or adjacent to the respiratory apparatus itself, whence the asthmatic attack is induced for the most part in a reflex manner. These reflex cases he again divides into two groups, of which one has to do with unaltered respiratory passages, while the other s associated with abnormal conditions.

In the latter group he especially includes what is now generally described as bronchialitis exudativa, characterized by the presence of spiral coagulated products in the sputum, although Curschmann does not claim, as some others do, that the presence of these spirals necessarily implies asthma. According to him, there must also be the affection of the mucous membrane with the intense irritability consequent upon it. The simple clothing of the bronchial mucous membrane with such a secretion would explain a bronchialitic dyspnœa, but not a bronchialitic asthma. He leaves open the question whether spasm of the diaphragm has anything to do with the attacks of asthma. He does, however, insist that the bronchialitic condition is primary, and the asthmatic, secondary.

As to the first group of secondary asthmas, where the bronchial passages are intact, Curschmann regards as especially important those asthmatic attacks which emanate from disease of the nose and nasal spaces. They include swellings and hypertrophies of the turbinated bone, polypi, exostoses, etc. They produce the so-called nasal asthma. Especially serious cases are those instances of nasal asthma which are accompanied by exudative bronchialitis.

Of that form of primary asthma in which the cause resides in the brain, or the nervous paths which lead from the brain to the respiratory apparatus, Curschmann has had no cases, and believes it to be at least very rare.

The prognosis varies with the patient and cause of the disease, being most favorable in those cases where the condition is due to reflex processes, while the lung itself is unaffected organically. Much more serious are the cases due to exudative chronic bronchiolitis.

In the treatment narcotics hold the first place, and probably cocaine is destined to play an important role. In the treatment of the general condition iodide of potassium is very valuable. Surgical measures may be useful. Many cases of nasal asthma recover entirely, while others only partially recover, or relapses take place.

In this connection we may call attention to the new work of DR. SAJOUS on "Hay Fever and its Successful Treatment." According to his views, hay fever would exemplify that form of asthma which Curschmann has never met,—the form in which the cause resides in the brain and nervous paths which lead from the brain to the respiratory apparatus. For, according to Dr. Sajous, persons subject to hay asthma possess, as the result of heredity, diseases implicating markedly the nervous system, nerve centres which have become abnormally sensitive and are therefore inordinately influenced by the external irritants to which they respond. But this is not the whole of the pathology of hay asthma, according to Dr. Sajous. Not only must there be a hyper-excitability of the nerve centres, but the nasal mucous membrane must be hyperæsthetic, and capable of transmitting to the abnormally sensitive nerve centres the impression made upon them by external irritants, which are supposed to be the pollen of flowers and certain other unknown elements which prevail only from June to September. Given the absence of any one of these conditions and the patient is spared the attack. The absence of the physical element, whatever it may be, which causes the irritation may be secured by removal to certain localities where it does not prevail.

Dr. Sajous secures the removal of the irritable mucous membrane by eliminating, first, the abnormal conditions of the mucous membrane, that is the swellings, hyperostoses, etc., by suitable treatment; and second, by cauterizing the hyperæsthetic nasal mucous membrane, and thus rendering it insusceptible to the irritating agencies. This is the new and successful treatment of hay asthma, in the early use of which Drs. W. H. Daly, of Pittsburg, J. A. Roe, of Rochester, and Prof. Harrison Allen, of Philadelphia, have, also, been conspicuous. We sincerely hope

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that further experience may confirm these preliminary statements, and that "hay" or "rose" asthma may no longer be the opprobrium it has always been to the science of medicine.

THE RESPONSIBILITY OF GREATNESS.

THERE are some persons who may say whatever they choose without running much risk of doing harm if they happen to be wrong, while there are others whose lightest utterances are of the gravest moment, and who run a correspondingly great risk of doing damage, if what they say happens to be without good reason. To this number belong those distinguished men in our profession who, by their learning and experience, have come to occupy positions from which every expression of opinion carries almost conclusive weight to those who hear them. The honor of this position is no greater than its responsibility; and though the latter occasionally seems to be lost sight of, it may be that distinguished men think too modestly of themselves to understand how highly they are appreciated by others, and that this may lead them to overlook the preponderating weight of what they say, as against the sayings of those whom the world rates far below them. However this may be, it is, unfortunately, no rare thing for one who has an extensive and well-deserved reputation for learning in the science and art of medicine to express an opinion in regard to some detail of this science or art about which he has less precise knowledge than it might be supposed he has, in regard to which, in fact, he is mistaken, and about which he becomes the father of error. The worst of the matter is that the very merits of one who may do this deepen and widen the mischief.

This is a state of affairs which is probably inseparable from the constitution of men's minds, and an essential part of that proper respect for years and position which lies at the foundation of all stability in scientific matters. But the recognition of this liability to err should form a part of the preparation of every man of consequence for the expression of his opinions, especially on controverted points. Failure to recognize it may lead to mistakes which mislead others, and leave an unfortunate record for the inspection of posterity.

An illustration of this is to be seen, from time to time, in items which go the rounds of the medical journals, and which are sometimes found in those which take special pains to be select in their citations. Thus the *London Medical Record* recently contained an abstract of the opinions of Prof. Sperino on the "analogy between syphilis and rabies," on studying which we have been forced to the conclusion that it would be hard to put in so small a space the evidence of greater ignorance of the subject discussed. It is evident, from what is cited, that Prof. Sperino, notwithstanding his eminence, is entirely unfamiliar with what is knowable—we dare not say what is known—about the subject of rabies or hydrophobia. When Prof. Sperino says that "hardness of the lymphatic glands before the development of the disease, and a prolonged incubation, are common to" both hydrophobia and syphilis, he shows that he has made the common mistake of confusing what is striking, but exceptional, with what is ordinary, but less likely to be the subject of remark. When he says that "hardness round the wound in hydrophobia corresponds to the hard sore in syphilis," he is manifestly unaware of the fact that a careful study of a large number of cases of so-called hydrophobia shows indubitably that induration at the seat of the suspected bite is very rarely to be noted, and deserves no more consideration than the temporary hardness of most cicatrices. When he speaks of "Marochetti's vesicles" as corresponding to the mucous patches of syphilis, he certainly cannot be informed that the existence of the so-called "Marochetti's vesicles" is as purely a matter of imagination and misapprehension as is the existence of the moon-stone.

This slip of Prof. Sperino is a new illustration of the time it takes for the truth to catch up with falsehood. Allusions to the vesicles of Marochetti appear with tolerable regularity in articles on hydrophobia, which come from men who have not heard that the inventor of these vesicles was probably a charlatan, and that, after rigid scrutiny, both he and they have been relegated to the limbo of medical literature.

Again, Prof. Sperino says that hydrophobia, like syphilis, is transmitted by heredity—a statement which robs us of any right to be surprised at any other which he may make on this subject; while his assertion, that hydrophobia is not communicated by the milk, although perfectly true, is in direct opposition to a much greater mass of the same sort of evidence as is available to establish the hereditary transmission, which he does not hesitate to accept.

The culmination of Prof. Sperino's errors is reached when he speaks of the treatment of hydrophobia. Here he actually cites eleven cases of "mad-dog bites" in which there was hardness of the lymphatic glands, and in which mercurial frictions removed this condition. One child, he says, had several bites, and, owing to some of the wounds having been neglected, the first symptoms of hydrophobia appeared, but yielded to mercurial frictions. The author concludes, however, that "these eleven cases do not warrant a proclamation of the prophylaxis of rabies."

In all this there is shown the same ignorance of what has been tried and found wanting long ago which marks most of the utterances in this communication. In fact, the whole theory of the analogy of syphilis and hydrophobia is an ancient thing. John Douglas

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put it quite succinctly more than a hundred years ago when, speaking of hydrophobia, he said "that antidote which most effectually expels the malignant and deadly poison conveyed by the sting in a harlot's tail, must also be the best antidote against the sting of the scorpion, the bite of the viper, rattlesnake, and all the serpents in the East or West Indies." And it is more than three hundred and fifty years since Palmarius first suggested the use of mercurial frictions in the treatment of hydrophobia—a suggestion which, after centuries of testing, has proved utterly useless.

Unfortunately, the profound ignorance of most medical men in regard to the literature of hydrophobia prevents the immediate rejection of such already thoroughly discussed and thoroughly exploded suppositions as these. Unfortunately, too, this very ignorance is likely to lead to the adoption of Prof. Sperino's ill-founded opinions on his sole authority, and to favor the propagation of the darkness which they were intended to enlighten.

Thus we see that eminence is no guarantee of infallibility, and once more is illustrated the possible perversion of the influence of authority, which, when rightly used, is one of the best as well as one of the most important agents in the formation of a correct scientific opinion. Let those, then, who, however modest, must be aware that a special value is attributed to whatever they say, exercise the greatest caution in expressing views which they have formed from inadequate investigations, and let them do this all the more if their opinions concern matters which have been the subject of careful research on the part of others.

ALBUMINURIA AND THE MERCURIAL TREATMENT OF SYPHILIS.

AT the recent Congress of German Physicians FÜRBRINGER, of Jena, read a paper upon the albuminuria of syphilis with and without mercurial treatment. He found that of secondary syphilitics who before treatment were not albuminuric, eight per cent. became albuminuric during treatment. In cases of primary syphilis not treated with mercury, albuminuria occurred in twelve per cent. of cases, almost always in the stage of disappearance of roseola; with the exception of three cases, the albuminuria disappeared with the institution of mercurial treatment.

In the discussion which followed, SCHUSTER claimed that cases of serious albuminuria due to syphilitic renal disease recover by mercurial treatment, and that there is no contraindication to the use of mercury in these cases.

SCHUMACHER had observed several cases of simultaneous syphilis and nephritis, and was satisfied that the nephritis preceded the syphilis and continued during the further development of syphilitic phenomena. The mercurial treatment used in these cases did not aggravate the symptoms of nephritis.

In his quite recent work on *Urinary and Renal Disorders*, DR. BEALE says, "of all the forms of chronic renal disease, those which are due to syphilis are the most likely to get well." Even in large albuminurias, with considerable and persistent dropsy, improvement may be confidently predicted, and even recovery not uncommonly takes place in the course of a few months.

The treatment in the early stages is that usual for Bright's disease—purgatives, warm baths, and hot air baths. When the albumen is reduced to one-fifth and urine is passed freely, he recommends iodide of potassium, iodide of iron, and other preparations containing iodine. Complete recovery is often thus produced after judicious treatment is kept up steadily for two or three months.

Dr. Beale thinks that the glandular enlargements, of which the kidney is an example, in syphilis, were less common when the mercurial treatment was more in vogue, although he admits that necrosis is less frequent. There can be no doubt that the judicious combination of the alterative with tonic chalybeate treatment in syphilis as contrasted with expectant treatment is calculated to be most serviceable.

SOCIETY PROCEEDINGS.

KENTUCKY STATE MEDICAL ASSOCIATION.

Thirtieth Annual Session, held at Crab Orchard Springs, June 24, 25, and 26, 1885.

(Specially reported for THE MEDICAL NEWS.)

WEDNESDAY, JUNE 24TH.—FIRST DAY.

AFTERNOON SESSION.

ONE of the most interesting and at the same time one of the largest meetings of the Kentucky State Medical Association assembled, at 4 P.M., in the hall of the Springs Hotel, of that historic little town Crab Orchard, near the southern border of the State.

After the call to order, by THE PRESIDENT, PINCKNEY THOMPSON, M.D., of Henderson, and prayer, the members received a cordial welcome from the President of the Crab Orchard Springs and Salts Company.

The address of welcome on behalf of the Committee of Arrangements together with their report, was made by DR. EDWARD ALCORN, of Hustonville.

DR. WILLIAM BAILEY, of Louisville, then read his report, as Chairman of the Standing Committee, on

THE PRACTICE OF MEDICINE.

In review of the important features of the practice of medicine at the present time, he passed a scathing criticism upon the method employed by so many of our leading drug manufacturers for the introduction of their wares to the profession. The sending of samples has reached such proportions as to be of necessity a nuisance to the practitioner. The time has come for the pro-

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fession to call a halt upon this custom and to demand that the practitioner shall prescribe the manner in which his remedies shall be prepared and not submit to whatever the fancies of the manufacturer may direct. As a rule these preparations come well attested, so far as the number of certificates is concerned, but all know how and whence such testimonials are obtained and of how little value they are as evidence of the quality of the article to which they refer.

Few subjects at the present season claim the interest that cholera is assuming, owing to its appearance again in Spain. High honor is due, he said, to those fearless investigators who are devoting their time and energies to the discovery of the cause and mode of prevention. The hope was expressed that they may be rewarded by the discovery of facts that shall lead to its prevention or even its cure. The relation between the comma-bacillus and cholera was next considered. Koch, as is well known, has discovered a bacillus for which he claims the origin of the disease. Straus has described a bacillus which he believes the same as that of Koch, but which was found in the alimentary canal of healthy individuals. In the light of recent experiments it is probable that the comma-bacillus is a result rather than a cause of cholera. Why is it, he asked, that the bacilli, if the cause of cholera, are not found in the blood and in all the tissues, just as we know the poison of smallpox must exist.

For the germ theory he expressed admiration, but thought that the whole subject should still be held *sub judice*. In the end we shall probably find that the cause of cholera as well as of dysentery, malaria, and other infectious diseases, is atmospheric and telluric rather than the presence of microörganisms.

DR. DUDLEY S. REYNOLDS, of Louisville, failed to recognize the force of the logic employed: First, he could see no force in the objection to the finding of the bacillus only in the alimentary canal; and, second, he could see no analogy between cholera and smallpox. It is well known, that whatever the cause of the former disease, it produces its results by so irritating the lining of the intestinal tract as to deplete from the general circulation to such an extent as to cause fatal thickening of the blood. Smallpox, on the contrary, is a disease of the blood. The speaker favored the germ theory, and thought that the recent investigations of the epidemic at Plymouth, by Drs. Shakespeare and French, had added much force to the belief that typhoid fever also depends upon the action of a germ.

DR. JOSEPH N. MCCORMICK, of Bowling Green, thought the germ theory of the origin of cholera better established than the theory of atmospheric and telluric origin. As an argument for this we need but refer to the fact that the disease does not always prevail with anything like the same degree of severity in different places having, so far as we can discover, precisely the same atmospheric and telluric surroundings when infected at the same time. Special consideration was directed to the outbreaks of cholera in this country in 1873, and in France and Italy last year. In every instance where careful investigation was made of the origin of the disease in any particular district, it was found to be clearly traceable to a previously infected locality.

DR. YEAGER, of Campbellsburg, objected to the germ theory as not being sufficiently established and placed more importance upon the atmospheric and telluric influences in the production of an outbreak of cholera.

DR. J. B. MARVIN, of Louisville, feared that the essayist had not pursued his studies of the cholera bacillus quite to the extent to which he should have done before making a positive statement of his disbelief in the theory of its causative relation to the disease. There have been described, up to the present time, at least three distinct varieties of comma-bacilli, one described by Koch and two supposed by their discoverers to be the same as he had described. Of only one variety however could it be asserted that it was capable of producing cholera. Koch has not only produced the symptoms of the disease by inoculation with the germs he had discovered but he has cultivated them and produced the same results from inoculation with germs of succeeding generations of the microörganism. In conclusion and in argument for the truth of the germ theory of the disease, the author cited the outbreaks of the disease that have occurred at Mecca. It has been observed that notwithstanding the obligatory presence of large numbers of pilgrims, all obliged as a religious duty to drink of the water of a single well, cholera did not appear until the pilgrims arrived from certain districts where the disease was endemic. Upon one occasion when there were present 100,000 pilgrims, a band arrived from one of these infected districts; the disease broke out within 48 hours and in the space of but a few days had destroyed 15,000 people.

DR. BAILEY, in concluding the discussion of his paper, remarked that he had wittingly made few positive assertions. His object, upon the attainment of which he felt that he had reason to congatulate himself, had been rather to exhibit that wholesome amount of scepticism which is always an incentive to the investigation of a subject and a means of arriving at the truth.

EVENING SESSION.

VICE-PRESIDENT DR. L. S. MCMURTRY, of Danville, being in the chair, THE PRESIDENT, DR. PINCKNEY THOMPSON, of Henderson, delivered the

ANNUAL ADDRESS.

In introduction he congratulated the Association upon its having attained the honorable age of thirty years and upon the large number permitted to be present. Meetings of this sort are profitable in many ways. Here we compare views, and interchange opinions on the causes and treatment of diseases. It is a safe assertion that the physician occupies a position second to no other class of men. An old Roman said, "Men are never so like gods as when their aim is to secure health to their fellow men." The true physician must be upright, truthful, pure, with the sick and with the well.

The remaining portion of the address discussed the evils which are at present sapping the life of society, particularly the errors of education and dress, becoming more and more recognized as responsible for the destruction of the physique of the young, and especially of young women. The building of high, four and five story schools was particularly condemned, on account of the harm resulting from the necessary amount of climbing in going from one recitation-room to another. Bad ventilation of these buildings is another evil of the

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greatest importance. In conclusion it was asked, Are we in our daily intercourse with people among whom we practise and who will heed our words, warning them of the great importance of observing all these hygienic laws, especially in the family and school-room. If not, then we have missed a most important part of our calling, and have fallen short of the high ideal of our noble profession.

DR. E. WILLIAMS, of Cincinnati, then read a paper entitled

A PHYSICIAN'S OPPORTUNITY OF BEING AND DOING GOOD.

It opened with severe, but seasonable, attacks upon quackery and the manufacturers of quack nostrums. The essayist then drifted into the discussion of a pseudo-theological system of medicine, in which the physician and minister should walk hand in hand, each aiding the other in his efforts to elevate the spiritual and bodily condition of those by whom he is consulted. The address was full of good practical suggestions for both the profession and the public, and was enlivened by numerous anecdotes and tales of experience.

THURSDAY, JUNE 25TH.—SECOND DAY.

MORNING SESSION.

THE BOARD OF CENSORS

announced that a communication had been received from the Boyle County Medical Society, complaining that two of the members of the State Association from that County were not members of the said County Medical Society, as required by the Constitution, The Board had carefully considered the matter, and had arrived at the conclusion that there was nothing in the communication requiring the action of the State Society, but that the matter properly belonged to the County Society, to which it was referred. It was further the opinion of the Board that the clause requiring membership in a county society as a qualification for becoming a member in the State Association, referred only to the time of becoming a member, and that membership in the latter Association could be continued without continuing a member of the County Society, provided the other requirements of regular standing in the profession were not violated.

THE REPORT OF THE SECRETARY,

DR. S. M. LETCHER, was next read. From a large correspondence with the members of the Association, the Secretary was pleased to report an unabating interest in medical matters, and a prevailing desire for the welfare of the Association.

COMMUNICATIONS.

A communication was read from the Secretary of the American Medical Association, asking the assistance of this Society in securing the passage of an act by the Legislatures of the several States providing for the appointment of State boards of medical examiners. A committee was appointed to consider the best method of complying with the request.

A communication was read from the Committee of the American Medical Association on the Collective Investigation of Disease, asking that a committee be appointed by this Society to coöperate with it.

A communication from the Association of Superintendents of Asylums for the Insane asked that the Society extend its assistance to secure some action that will prevent the immigration to this country of the so-called defective classes of society. A committee was appointed to report the best manner in which to comply with the request.

The Committee on Nominations made the following report of

OFFICERS FOR THE ENSUING YEAR:

President.—J. P. Thomas, M.D., of Pembroke.

Vice-Presidents.—I. A. Shirley, M.D., of Winchester, and R. C. McCord, M.D., of Lebanon.

Permanent Secretary.—J. Steele Bailey, M.D., of Stanford.

Assistant Secretary.—Fayette Dunlap, M.D., of Danville.

Treasurer.—Edward Alcorn, M.D., of Hustonville.

Librarian.—J. S. Taylor, M.D., of Warren County.

To fill vacancies in the *Board of Censors*, S. M. Willis, M.D., of Winchester; J. M. Harwood, M.D., of Shelbyville; E. M. Prenter, M.D., of Midway.

Committee of Arrangements.—S. M. Willis, M.D., Chairman.

Place of next meeting, Winchester; *time*, the last Wednesday of June, 1886.

The report of the Committee on

GENERAL SURGERY

was read by DR. J. M. MATHEWS, of Louisville.

Before entering upon the history of surgery for the past year, he spoke in pleasing eulogy upon the late Dr. S. D. Gross. The Nestor of American surgery has departed; the mind that has done so much to increase our knowledge has become still. It was a matter of pride to the Association that it had been esteemed as one of his own children by a man so eminent.

The author referred to the leading operations that have attracted attention during the past year. Disinfection, climate, hygiene, and the care of the patient after operation, were credited with as great importance as the operation itself. Since the last meeting of this Society there has been given to surgery a boon second only to chloroform. The field of application of cocaine is wide. A brief consideration of its physiological action followed. The author thought, from his own observation, that the drug prevented to a slight degree the prompt union of wounds made under its action.

A few remarks were directed to the comparative safety and value of the several anæsthetic agents. The reporter preferred chloroform, and thought it about as safe as ether or any of the combinations. Rectal etherization has not proved the boon that it was expected to be.

The several disinfectant agents and the methods of their application were discussed. Referring to the efficiency of disinfectants, he remarked that with our present knowledge of their action it is possible for the surgeon so thoroughly to disinfect himself as to operate fearlessly within a short time after attending a septic case. He also quoted the statement made by Volkmann, in a communication to Dr. George S. French, of Minneapolis, that a man may safely go from the dissecting-room to the obstetric bed. The recent advances of abdominal surgery were described.

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DR. W. CHEATHAM, of Louisville, objected to the statement that cocaine deterred to any extent the union of wounds made under its action. He, however, had observed that, in addition to its other properties, it possessed positive styptic properties; but, notwithstanding this, he thought that it rendered the occurrence of secondary hemorrhage a little more likely.

DR. W. F. COOMES, of Louisville, remarked, with reference to abdominal wounds, that interference is generally too long deferred. If he should himself receive an injury of any sort about which there was any hesitancy on the part of the attending surgeon, he should say operate at once. Abdominal wounds will heal as promptly and as thoroughly as wounds of any other part, provided cleanliness is made a cardinal feature of the treatment. Of iodoform he reported that he has used it freely in diseases of the nose, throat, and eye, and considered it of especial value in painful affections. He had found it would relieve promptly the most excruciating pain in the larynx. He then reported the case of a physician who had used it by insufflation in the quantity of two grains every morning for seven weeks, without evil result. But one morning, in about fifteen minutes after its use, he began to suffer from toxic symptoms, dizziness, depressed action of the heart, etc., and this continued at each insufflation as long as he continued to use it.

DR. A. DIXON, of Henderson, then read a paper on

LAPAROTOMY.

He reported a case of abdominal tumor which proved to be a large uterine fibroid, producing ascites. The tumor continued to increase rapidly in size after the reporter first saw it, becoming so large in the course of five or six months as to fill the entire abdominal cavity, rendering surgical interference positively necessary. The operation was performed on the 23d of May, after the method of Schede. The various steps of the operation were described, with special reference to the ligaturing of the pedicle and its separation. The abdomen was carefully cleansed and the edges brought together and secured according to Volkmann's method. The patient rallied well from the operation and had no untoward symptoms until the tenth day after. Her temperature then arose suddenly to 104°. The dressing was removed, and a small quantity of pus flowed from several suture wounds. After removal of the sutures, carbolized water was forced through the openings, washing out a small quantity of pus and necrosed connective tissue, The dressing was reapplied, and this method of treatment was carried out daily during the further progress of the case, with the effect of preventing the return of any unpleasant symptoms. He thought that in this case, as in the majority of such cases, the suddenly arising fever is of an aseptic character, and not pyæmic, as is sometimes supposed.

DR. E. WILLIAMS, of Cincinnati, referring to the remark of a previous speaker, said that he had found the American preparations of cocaine unreliable, and that he now used only that of Merck, of Germany. He had not observed any increased liability to secondary hemorrhage after its use. A case was reported in which his assistant had removed a small dermoid cyst from just above the eye, attempting to prevent suffering by cocaine, but without very good result.

DR. A. M. VANCE stated that his experience with the drug in general surgery had been a little more satisfactory than that of Dr. Williams. By its use he had been enabled to make extensive incisions through the skin, and perform various operations without pain. Its action upon the skin is as certain as upon the mucous membranes.

DR. W. O. ROBERTS stated that his experience with it had not been at all uniform. In some cases it acted admirably, while in others it failed. In operations about the anus, it had no effect at all; but in the treatment of strictures of the urethra, inflammations of the prostate, etc., it acted with certainty.

DR. T. B. SCOTT inquired with reference to the certainity of disinfectants, what degree of exposure a physician would be justified in undergoing before attending an obstetric case.

DR. T. A. REAMY, of Cincinnati, being called upon to answer this question, remarked that the statement of Prof. Volkmann, as repeated by the essayist, that one could go with safety from the dissecting room to attend an obstetric case was not so remarkable as it appeared, inasmuch as it has been repeatedly demonstrated that the germs that infest the dead body are not the same as produce infectious diseases. In proof of this, reference was made to the reports of cases in the late work of Dr. Lusk. The danger is not going from the dead-house, but from the living-house. Can a surgeon go from a case of so-called puerperal fever to a case of confinement? Under no circumstances should a physician in regular attendance upon an infectious case attend a case of labor; but the surgeon who is accidentally called to see such a case, may with safety attend a confinement upon this one condition: It is imperative that, as soon as he shall return from the case of infection, whether he shall have come into direct contact or not, he shall remove from his body every article of clothing, without exception. He must then take a warm bath, being thoroughly scrubbed and shampooed; then another bath in water containing a solution of the bichloride of mercury, or as much carbolic acid as the skin can bear. Then let him don an entirely different suit. This must be done at once, and not several hours after exposure to the contagion. Then, and then only, may he attend a confinement. A case illustrative of this was reported.

A paper on

ORTHOPÆDIC SURGERY

was read by DR. A. M. VANCE, of Louisville. Infantile paralysis is productive of nearly half the cripples we see upon our streets. Such being the case, it is important that we should be possessed of the best possible method of restoring these deformities. The ability to cure them by the ordinary methods is almost *nil*. The apparatuses are usually so cumbersome and so painful as not to be borne by the little cripples, and are cast aside. Brief reference was then made to the leading operations that have been made or suggested for such deformities. The reporter had adopted the plan of exsecting the joint or angle of bone deformed, and fixing the ends of the fragments so as to secure ankylosis in the most serviceable position. Several cases were reported, in which, after deformities of the ankle, knee, and hip the result of infantile paralysis, excellent results were obtained from the operation.

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DR. A. W. JOHNSTON, in making the report of the Committee on

THE SURGERY OF THE GENITO-URINARY ORGANS,

spoke first of the dividing of strictures of the urethra, commencing at the division of the meatus and proceeding backward. One of the most important discoveries in this direction of late years, was that of the relation which exists between the calibre of the urethra and the external diameter of the penis. With regard to the dilatation of these strictures, he agreed with Dr. Otis, that "if you want to get rid of a stricture, you must stretch it to its utmost extent, and cut it while on the stretch." This is the treatment for most cases, but still there is a field for the rapid dilator. Brief reference was made to inflammatory affections about the orifices of the seminal ducts, prostatic, and vesical calculi. With reference to the latter, the opinion was expressed that in the near future, the man who operates for stone, will employ the method of crushing, and rapid extraction, or abandon his practice.

The subject of the next paper was

THE REPORT OF A CASE OF LIGATURE OF THE SUBCLAVIAN ARTERY IN THE THIRD PART OF ITS COURSE, FOR TRAUMATIC ANEURISM, WITH SUBSEQUENT INCISION OF THE SAC AND RECOVERY,

by DR. L. S. MCMURTRY, of Danville. The patient was a robust man, aged 30 years, who, thirteen months previous to the operation, received a pistol-wound of the shoulder, the ball passing deep in the vicinity of the joint. In a few weeks a small lump appeared in the axilla, which increased in size until at the time of operation, thirteen months afterward, it had reached the dimensions of a child's head. The tumor occupied the entire axillary space, and had burrowed up beneath the pectoral muscles. Paralysis of the arm, forearm, and hand resulted from the pressure on the brachial plexus of nerves, so that this member hung useless at the side. The operation was performed two days after the patient called for advice. A silk ligature was passed around the subclavian artery at the external border of the anterior scaleni muscles. Pulsation was at once arrested in the tumor, and never returned. The radial pulse, which before the operation was feeble and fluctuating, was annihilated. The patient made a prompt recovery without accident or complication. On the twenty-first day, the ligature came away. One month afterwards, the patient returned home and was not seen for four months. After the lapse of this period, the patient again presented himself. The tumor had materially decreased in size and was without pulsation or tenderness. The pressure on the plexus of nerves remained with the consequent paralysis. It was then determined to extirpate the tumor. The patient being anæsthetized, an incision was made and a ligature thrown around the axillary artery on the distal side of the tumor. The tumor was then laid open, the clots removed, and the cavity cleaned. The patient is now making a good recovery, and will soon be able to resume his occupation as a farmer. The speaker said that when the conditions are considered it is not surprising that ligature of the subclavian for axillary aneurism is followed by the frightful mortality of 48 per cent. The operation just described, although embodying the principles of the Hunterian operation, is not far removed from the method of Anel. Indeed, when, as in the case reported, the aneurism extends above the acromial thoracic branch, the circulation through the sac is completely arrested by the ligature. Hence suppuration of the sac and secondary hemorrhage are to be anticipated. Again, the ligature is placed in the vicinity of large branches. These facts explain the high death-rate after the operation. The case reported is an illustrative one and the type of a class of circumscribed traumatic aneurisms resulting from wound of the coats of the arteries. The aneurism in these cases approaches in character the pathological form of the disease, with this important exception, that the coats of the arteries above and below the tumor are not involved and are free from disease. It is this feature which makes this class distinct from idiopathic aneurism so far as prognosis and treatment are concerned. In eight cases of this class cited by Erichsen—aneurisms of the axillary artery resulting from stabs and gunshot wounds treated by ligature of the subclavian—not one fatal result occurred.

DR. W. O. ROBERTS reported the case of a man who was stabbed just above the clavicle. Slight hemorrhage occurred at the time, but it was observed that but little pulsation was perceptible at the wrist, and the arm of the same side was paralyzed. The opposite pulse was feeble and beating at the rate of 140 per minute. When he first saw the case, the wound had healed and there was no enlargement. Upon examination of the chest, the apex-beat of the heart could be distinctly felt just below the right nipple, while percussion of the left side elicited flatness throughout. The man died twenty-four hours after. The autopsy revealed the fact that the knife had penetrated the scalenus anticus muscle and punctured the vessel. Around the seat of puncture was a small traumatic aneurism which had ruptured. There was a large opening into the pleura, and this whole cavity was filled with blood, the lung being pushed back against the thoracic wall.

Another case was that of a man with a large osteo-sarcoma of the shoulder, which was removed by disarticulation at the shoulder-joint. There was no involvement of the scapula or shaft of the humerus. During the operation very little hemorrhage occurred. The patient did well until the fourteenth day, by which date the wound had healed through the upper two-thirds. Then a slight hemorrhage occurred. Six hours later, there was a considerable gush of blood, which had to be arrested by pressure upon the subclavian. The original wound was then opened, and the hemorrhage was proved to be from the axillary artery. This was ligated *en masse*. Five days later, the hemorrhage again started and the axillary artery was ligatured, with the result of completely arresting the bleeding for two weeks. Then a slight hemorrhage occurred, but was finally controlled by pressure.

DR. M. F. COOMES read the

REPORT OF THE COMMITTEE ON OPHTHALMOLOGY,

in which he reviewed seriatim the more prominent drugs that are employed by the ophthalmologist, with their uses. Nothing especially recent was reported. Among other recommendations, the author advised the use of a solution containing eight grains each of atropia

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and morphia in the eyes of delicate females suffering from what he desired permission to call sympathetic glaucoma. The speaker thought the use of the jequirity bean a dangerous procedure at best, and had not himself ventured to try it.

DR. W. CHEATHAM remarked that the term chosen by the author for the affection of the eyes of nervous females, whatever it might be, was a peculiarly unhappy one even if the treatment be proper, for it is a well-known experience that atropia will of itself produce glaucoma. Either the name of the affection should be changed or a more harmonious treatment chosen.

DR. E. WILLIAMS, of Cincinnati, considered inoculation with jequirity as dangerous as inoculation with the virus of gonorrhœa, and not nearly so certain in its results.

AFTERNOON SESSION.

DR. J. A. STUCKEY, of Lexington, exhibited a patient who had received a severe injury to the abdomen by being crushed between the draw-head of a locomotive and that of a freight car. The coupling-pin, weighing seventeen pounds, had been forced through the abdomen, entering at a point about midway between the umbilicus and anterior superior spinous process, and passing out at a corresponding point in the lumbar region. The rent was a large one, and showed marks of having but recently healed.

THE REPORT ON OPHTHALMOLOGY

was read by DR. DUDLEY S. REYNOLDS, who chose as his subject: *The Sources of Error in the Operations Intended to Cure Squint.*

It is necessary, he began, before arriving at any conclusion with regard to the treatment of a persistent squint, to make a thorough investigation of the case, in order to recognize what are the real causes of the trouble. Although there had been a great many speculations concerning this, Donders, in the early part of this century, was the first to recognize the more important causes of it. Graefe was the first to recognize the importance of the discovery, and to apply to it a better mode of treatment than had been employed. The reporter then reviewed the various causes of strabismus: errors of refraction and accommodation, troubles of nutrition, troubles in the sensorium, opacities of the cornea, affections of the coats of the eye or of the vitreous humor, etc. For the relief of such cases, it was recommended first of all to relieve whatever errors there might be in the accommodation by the use of properly adjusted glasses. The operation for squint should not be made unless the affection is single. After describing in brief the methods of operating, the author concluded with the advice to treat all squints as soon as possible after they begin to develop, the operative procedure being reserved for cases which have existed too long to be relieved by other means.

DR. CHEATHAM remarked that he made it a rule never to operate upon these cases until the child has become old enough to wear glasses for the correction of the difficulty, unless the sight is failing rapidly.

DR. E. WILLIAMS thought that the cases of complete recovery from squint are not numerous. The result from alternating squint more frequently completely recovers than single squint. There is some etiological element in many cases of squint which is not explained by reference to errors in refraction. There seems to be a want of natural balance between the muscles.

ACUTE CATARRH OF THE MIDDLE EAR, AND ACUTE SUPPURATION OF THAT ORGAN,

was the subject of the report on Otology, by DR. W. CHEATHAM, of Louisville.

To bad management can be traced nearly all the chronic cases of suppuration from the middle ear, and the two are in a great measure the cause of many cases of great suffering and finally death. The paper was for the most part clinical, embodying the reports of a large number of cases that had come directly under the observation of the author. For the relief of acute inflammation of the middle ear with severe earache, the speaker recommended the use of the aural fountain-syringe or douche, with plenty of hot water, its use to be continued for some time. The point of the tube should be long enough to pass well into the ear. In conclusion, the hearers were cautioned against the use of poultices. They should never be used until all other measures have failed.

THE REPORT ON PHARMACY

was read by DR. J. P. THOMAS, of Pembroke. It began with a review of the leading discoveries in the field of materia medica during the past two years, then passed to the consideration of the leading pharmaceutical preparations that have of late appeared. The author strongly condemned the practice of too many of our manufacturing pharmacists, who devise a new remedy or preparation and procure for it a list of recommendations from unreliable sources, giving it the appearance of having been proved.

DR. J. A. LARRABEE, of Louisville, then read the report of the Committee on

DISEASES OF CHILDREN.

The relations of malnutrition and pneumonia severally to the etiology of children's diseases were first considered; then the more common factors of bad hygiene. While we do not see the sad pictures in the faces of children in this country that are witnessed in foreign countries, it will not be long before restraining legislation will be required by such a condition of affairs. Children should be prevented from engaging in work in shops at too tender an age.

The question of feeding is one of the most important we have to consider; in large institutions it is of the utmost importance. As high as ninety per cent. of mortality has been reported from some of the foundling hospitals, the majority of which was due to improper feeding. In the hospital at Louisville, where mother's milk is alone used, the mortality has been but five per cent. No perfect substitute for this has yet been devised. Another great error is the overfeeding of children—a very frequent source of trouble.

Cholera infantum was next considered. In referring to its etiology, the author remarked that the term thermal, as applied to the disease by Dr. Wood, was scientifically correct, inasmuch as it is more closely allied to sunstroke than to any other affection. This was proved by the result of the therapeutics applied to it by the same author.

The treatment is all-important. Hypodermatic medication should be almost exclusively resorted to, giving

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in the early stage a solution of morphia and atropia. A single injection of the proper quantity will, in most cases, cause a halt of the symptoms, even when the child is in a state bordering on collapse. The salicylates of lime and soda are the best remedies that have been proposed.

Diathesis and cachexia are to be carefully considered in all cases. Many a child is lost while its disease is properly treated by its name, because the peculiar diathesis is not recognized.

Nothing is more frequent in childhood than fever. It is not, however, as a rule very severe. Most fevers have their origin in the intestinal tract. The essayist held the opinion that most cases of malarial and intermittent fevers reported in children are in reality cases of typhoid. The reason that infants so seldom have typhoid fever is not because of the supposed non-development of the Peyer's glands, but because, as proposed by Gebhardt, the poison of typhoid fever enters the system through drinking-water, and infants drink less water than adults or children. This view is supported by the fact that typhoid fever occurs most frequently at the age when children drink the most and with the least discrimination of water.

Diphtheria, its etiology and treatment, was made the subject of especial comment; and a case was reported in which tracheotomy was followed by recovery, in a case of croup. No advance, however, has been made in the treatment of this disease.

In conclusion, he remarked that more learning and less medicine is needed in the treatment of the diseases of children. Plenty of good food, fresh air, sunshine, and good nursing, with now and then a dose of castor oil, is about all that is required to raise a child.

DR. WEBB inquired more particularly with regard to hypodermatic medication, especially with reference to the dose for an infant. Several years ago he had employed this method in treating a case of this kind, with the most satisfactory result.

DR. HOWARD remarked that the line should not be drawn between children raised on the bottle, but between children raised in the city and those raised in the country. We do not kill them that way, he said, in the country. He would prefer the chances of raising a child by the bottle in the country to letting it nurse a delicate mother.

DR. P. B. SCOTT said that the chief reason for the greater mortality of children raised in the cities over country children lies in the fact that in the country there is plenty of good milk and fresh air. He thought the closest line should be drawn around the feeding of children, both as to the quantity and the quality of the food.

With reference to the hypodermatic medication of children, he said that the same remark had been made by the essayist at the County Medical Society, and with a sort of "eureka" air. He had employed the method some years ago with success, but he did it with fear. He was further curious to know what advantage could be derived from the combination of morphia and atropia. Morphia is, to say the least, one of the most dangerous remedies that can be used in childhood. It should not be used in combination with other remedies, but given separately.

DR. WILLIAM BAILEY remarked that the subject of feeding might be summed up in the statement that the most direct way of starving a child is to overfeed it. He further asked, is not the real cause of the symptoms resembling inflammation of the brain in cholera infantum anæmia of the brain? If this be true, we should abstain from the administration of the bromides, but rather give opium and remedies which tend to congest, and keep the head low.

DR. PINCKNEY THOMPSON thought the greater part of the blame for diseases of children in cities lies at the door of unhealthy mothers. As far as the lacteal secretion is concerned, the woman can be compared to any other animal. If an animal is kept constantly irritated and restless, its milk is of no nutritious value, and just so with a weak, nervous, irritable woman.

DR. LARRABEE, in concluding the treatment, expressed agreement with the statement that anæmia of the brain is the cause of the cerebral symptoms of cholera infantum. It reply to the inquiry about the dose of morphia and atropia, he stated that he used the hypodermic pellets containing one-fourth of a grain of morphia and one-sixtieth of a grain of atropia, making a solution at the time of using, and injecting enough of the solution to contain one-two-hundredth of a grain of morphia and about one-six-hundredth of a grain of atropia. This, for an infant under a year.

DR. W. O. ROBERTS, of Louisville, read a paper on

HERNIOTOMY,

containing a report of a large number of cases, illustrating the different modes of operating and their relative advantages.

EVENING SESSION.

DR. J. MORRISON RAY, of Louisville, read a paper on

WOUNDS OF THE ANTERIOR SEGMENT OF THE EYEBALL.

A number of cases of this accident were reported as having come under the observation of the essayist at the Manhattan Eye and Ear Hospital, New York. The points raised had reference to the treatment and its results. The cases illustrated for the most part the great extent to which the reparative process may operate when but little interference is made.

DR. CHEATHAM then read a paper entitled

NEURO-RETINITIS ALBUMINURICA.

After reporting several cases in which the lesions about the optic disk and retina could be readily recognized with the aid of the ophthalmoscope, he described the characteristic optic lesions found in descending neuritis. Retinitis is frequently associated with Bright's disease occurring, according to the best authorities, in about seven per cent. of all cases, and most frequently in the cirrhotic kidney. The micro-pathological changes in the retina were then described at some length, showing that the lesion is a combination of cirrhotic proliferation of connective tissue and fatty degeneration. Several illustrations were, at the close of the report, thrown upon a screen with the magic lantern.

PRIMARY LATERAL SCLEROSIS OF THE SPINAL CORD

was the title of the next paper, by DR. J. B. MARVIN, of Louisville.

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This affection is rare, and has been described only recently. It comes on gradually, and is symmetrical in its development. The sclerosis is not a secondary degeneration due to any lesion in the cord or brain. It is a disease of adult life, occurring between twenty and fifty, and more frequently in males than in females. The real cause is unknown, but it is thought that the neurotic temperament plays an important part, and probably syphilis does the same. High fevers, especially typhoid, are among the causes. Grundelli, of Rome, reported eleven cases occurring in the vicinity of that city. It seems usually to attack robust individuals. It is attended with loss of power, and muscular rigidity and twitchings, and an increase, at first, of the muscular reflexes. The patients are well nourished, and there is no disturbance of coördination. There are no sensory disturbances, and no disturbances of the vesical or rectal muscles, showing that the lesion must be limited to the lateral tract of the cord. In the few post-mortems that have been had, little or no evidence of disease has been obtained.

The disease was first described by Charcot and Erb, and by Seguin in this country. The only specimen supposed to be in existence, was exhibited at the last International Congress, and is the property of Drs. Dreschfield and Morgan, of England. The disease seems to commence in the connective-tissue fibres, compressing the nerve-fibres, and ultimately destroying them. The symptoms occur much more frequently as a secondary affection.

The diagnosis of lateral sclerosis is easy, the only question being, Is it primary or secondary? It is in practice most frequently confounded with transverse myelitis. It is probably the most chronic of all spinal affections, for it does not of itself shorten life. It however produces serious complications. It may extend to the anterior columns, causing paralysis, which in turn gives rise to bedsores, malnutrition, and finally death. As regards recovery, the pathological changes would appear to preclude the possibility of it, but such cases have been reported.

At the conclusion of the report, several photographic preparations of the spinal cord, in health, in posterior sclerosis, ascending myelitis, and finally in lateral sclerosis, were thrown upon the screen. The microscopic appearance of the specimen from the case of Dreschfield and Morgan was thus demonstrated. A specimen prepared by the author from his case was then shown under the microscope, exhibiting (though not to the same degree) the same lesion.

DR. ORPHEUS EVERTS, of the Cincinnati Sanitarium, College Hill, Ohio, read a paper on

OVERWORK AS A CAUSE OF INSANITY.

The paper began with a physiological study of work and overwork; the natural relation between work and rest. Few cases are brought to an asylum without the explanation that the individual has overworked. Such an explanation serves not only to flatter the vanity of the patient and his friends, but also thoroughly to conceal the real cause. Several cases were reported which illustrated in a striking degree what was meant by this. Intemperance and excesses of various kinds were shown to be the cause in cases where the habits of the individual were supposed to be the most exemplary. In conclusion, it was asserted that as a cause of insanity, overwork occupies a place of little importance. This conclusion was arrived at after many years of experience in that branch of practice.

DR. M. F. COOMES remarked that, in his opinion, a great many cases of insanity are due to inanition, caused by the habits of business men, who closely apply themselves during the entire day without giving themselves time to eat and digest their meals. It should always be a rule never to go to bed hungry.

STRYCHNIA AND MERCURIC BICHLORIDE IN THE TREATMENT OF PHTHISIS

was the subject of a paper by DR. T. D. FINCK, of Louisville. Several cases were embodied in the report, in which these remedies had been given in the dose of a thirty-second of a grain three times daily, with the most satisfactory results. In one the process of disintegration had already begun; in all the fever and night sweats disappeared, the appetite returned, nutrition increased, and all the symptoms but the cough were relieved. A brief review of the probable physiological action of the remedies was given in conclusion.

DR. D. S. REYNOLDS directed attention to the recent reports of German investigators as to the power of the bichloride of mercury in restraining disease, and further to the fact that ever since the discovery of the bacillus tuberculosis it has been found that that germ existed in large numbers in the lymphatics, and in the secretions of the air passages of individuals suffering from the so-called post-nasal catarrh. The speaker had of late observed that the constitutional use of the bichloride of mercury would in a short time clear away this affection.

DR. STUCKEY, of Lexington, reported good results from the use of this treatment.

DR. LETCHER reported that he had found the bichloride very useful in arresting the diarrhœa of phthisis.

At the close of the session a banquet was tendered the guests; a very enjoyable evening was spent.

FRIDAY, JUNE 26TH.—THIRD DAY.

The greater part of the last session was occupied with the appointing of committees and delegates to various societies, and hearing of reports.

The Committee appointed to consider the subject of

STATE BOARDS OF EXAMINERS

reported that the conditions stated in the communication were, in the State of Kentucky, impracticable. They recommend, however, that the legislature be petitioned to pass an act requiring all physicians practising in the State to register in the Clerk's office in each county, a diploma from a reputable medical college. This could be done, but anything more stringent would fail.

DR. JOHN G. CECIL read a paper on

MASTITIS.

The principal recommendations of the paper referred to treatment. The author advocated rest as the best method of treatment, and superior to all applications. The milk-pump must not be used. The idea that the child must be put to the breast immediately is an erroneous one, and capable of doing much toward the development of inflammation.

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DR. THADDEUS A. REAMY endorsed the leading points of the paper, and reported twenty-two cases occurring at the Good Samaritan Hospital, Cincinnati, where the child was taken from its mother shortly after birth. In eight he had employed the belladonna plaster; in fourteen, nothing; in none of them did an abscess develop. Fissures are a cause of mastitis, but they should be let alone.

DR. F. C. WILSON, of Louisville, exhibited several new inventions for the operation of tracheotomy. One of them for which he claimed especial advantages was so constructed as to admit of its being forced into the trachea at one plunge. A number of other patterns were shown. The speaker stated that his object was to elicit suggestions that might lead to improvements.

FRACTURES OF THE FEMUR

was the title of a paper by DR. P. S. CONNER, of Cincinnati.

The frequency of its occurrence, the gravity of the often-arising complications, and the rarity of its satisfactory repair, give never-failing interest to the subject. Occasionally met with in middle life, possibly even in childhood, it is one of the common accidents of old age. For this there is good anatomical reason in the increased brittleness of the bone, dependent upon senile rarefaction, and not, as is commonly stated, upon any change in the relation of earthy and animal constituents. The break may be located anywhere between the head and the intertrochanteric lines, the degree of obliquity depending in part upon the structure of the neck, but in great measure also upon the direction of the breaking-force. The literature of the profession is full of the discussions, at times acrimonious, upon the subject of intra- and extra-capsular fractures, their relative frequency, differential diagnosis, and appropriate methods of treatment. But practically this is of little or no value. It is impossible to tell in a given case, except by inspection of the joint, whether the fracture is in part within or partly without the capsule. Owing to the peculiar anatomical relations of the capsule, all are intracapsular in front, but behind some are and some are not, and, so far as the speaker knew, there is no way of determining during life which class of fractures he has to deal with. The wise course is to stop with the determination of the existence of a neck fracture, and to treat all cases as if complete repair by bone might be expected.

Dr. Conner then objected to the common explanation of the occurrence of ligamentous union on the ground of the deficient blood-supply to the upper fragment. If sufficient to maintain the health of the bone, it should be sufficient for the requirements of repair. This, with the other explanation that there is present too much synovial fluid, can have little effect in the prevention of union. The all-important cause is want of proper apposition of the fragments, and failure to keep them quiet—one or both. Best adapted to this end is the immovable dressing. This, to satisfy fully the requirements of the case, must embrace not only the thigh but the pelvis also, or at least half of it. And just here lies the difficulty in applying such dressings. The plaster-of-Paris dressing is for many reasons the best, but this must be applied so as to exert no undue pressure on the region of the genito-crural furrow. To apply it properly over the whole gluteal region and hold it there, requires an additional girding of the upper part of the opposite half of the pelvis, or the carrying of the supporting dressing obliquely around the body, across the opposite lumbar region. Even if the immovable dressing is properly applied, there is always a chance that in consequence of the wasting of the limb, sufficient loosening will occur to permit some displacement of the fragments, to prevent which, the weight and pulley treatment may be added.

Applied early, the immovable dressing saves the patient much suffering, and permits with safety all necessary changes of position. From increasing experience, the author has become convinced that by the careful application of this dressing we can secure better results to our patients and to ourselves than in any other way, and he further believes that in a large proportion of cases recovery will take place with a limb of good functional value. In conclusion, it was suggested that perhaps in the future it will be clearly shown that the rare occurrence of bony union in the past has been simply because the fragments of the broken femoral neck have not been kept steadily in apposition, but have been allowed to separate and play upon each other so that only an imperfect ligamentous repair has been possible.

DR. R. M. FERGUSON, in a paper on

THE TREATMENT OF CROSS-EYES,

considered chiefly the classes of cases fit for an operation and those which should be treated by other methods. Little was added to the remarks already made upon this subject. A thorough knowledge of all features of the case was deemed of the greatest importance.

After appropriate votes of thanks to officers and the proprietors of the resort, the Association adjourned to meet at Winchester, on the last Wednesday of June, 1886.

MICHIGAN STATE MEDICAL SOCIETY.

Twentieth Annual Meeting, held at Port Huron, June 10 and 11, 1885.

(Specially reported for THE MEDICAL NEWS.)

WEDNESDAY, JUNE 10TH.—FIRST DAY.

MORNING SESSION.

THE meeting was called to order by THE PRESIDENT, DR. DONALD MACLEAN, at 10 A.M., and GEN. WM. HARTSTUFF delivered an address of welcome.

DR. O. B. CAMPBELL then read a paper on

MIGRAINE.

He said that etiologically migraine is a "constitutional neurosis," with a strong hereditary tendency. Its symptoms are caused by vascular disturbances.

We have three elements: 1. A tendency (often hereditary) to nervous exhaustion. 2. Spasmodic anæmia 3. Irritative hyperæmia.

When an attack is impending croton chloral, caffeine, etc., will sometimes abort it. In the spasmodic stage nitrite of amyl, or morphia hypodermically, is of service. In the hyperæmic stage a combination of ergot, hydrobromic acid, and caffeine should be used. The

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neurotic element of the disease should be treated between the attacks by cannabis indica.

DR. SMART, of Hudson, advocated perfect rest for the patient in a dark room away from noise. The prolonged use of small doses of arsenic as a tonic and alterative he believed is beneficial. Cannabis indica, hydrate of chloral, nitrite of amyl, and bromo-caffeine, bearing in mind the physiological effects of each, may often be used to advantage.

DR. H. O. WALKER, of Detroit, then read a paper on

EXTERNAL PERINEAL URETHROTOMY,

with a report of five cases that he had operated upon successfully since the last meeting of this Society. The details were dwelt upon at length, emphasizing the necessity of thoroughly dividing all strictures the entire length of the urethra, together with sufficient dilatation of the prostatic urethra, so as to admit the index finger and permit of exploration of the bladder. He also exhibited a new urethrotome with filiform attachment, a prostatic divulsor, and beaked triangular-shaped urethrotomy knife, which he had devised for this operation.

AFTERNOON SESSION.

DR. T. A. MCGRAW, of Detroit, presented two patients, from one of whom he had removed the left parotid gland, and from the other had removed the left clavicle. The results in each case were most excellent.

DR. LUNDY, of Detroit, then read a paper upon

IRITIS: ITS RELATION TO THE RHEUMATIC DIATHESIS, AND ITS TREATMENT.

His views did not coincide with those recently expressed by Sir Jonathan Hutchinson regarding the extreme rarity of iritis in connection with either acute or chronic rheumatism. The author had frequently observed iritis in persons who were either actually suffering from rheumatism, or who were of an undoubted rheumatic diathesis. While Sir Jonathan Hutchinson's views might be correct so far as observation in Great Britain was concerned, they do not, in the author's opinion, agree with the facts observed in this country. Several interesting cases were reported in which great benefit was obtained from the free administration of sodium salicylate. When given in large doses the influence of the salicylate in controlling pain was remarkable. In some instances leeches, atropine, and moderate doses of sodium salicylate had no influence in controlling pain, but when large doses of the salicylate were given—forty to fifty grains—the pain was relieved as if by magic, and seldom returned. The author found the dilatation of the pupil by atropine much more easily attained after the use of large doses of the sodium salicylate. Whenever there exist great ciliary pain and irritation, it is difficult to dilate the pupil. This is the case even if no iritis exists. Whatever relieves the pain and irritation in the ciliary region removes two influences which militate powerfully against the action of a mydriatic. This the salicylate of sodium will do when the iritis occurs in a rheumatic subject, but it is necessary to produce the fullest physiological action of the drug. Smaller doses may suffice if the joints alone are involved, but when iritis exists there is "danger in delay." While internal medication is of great importance, when iritis is due to some constitutional or general disease, the local treatment must always be of the first importance. Atropine, four to eight grains to the ounce, should be instilled four to six times a day. We should aim to dilate the pupil as quickly and as fully as possible. If the pupil is well dilated, no adhesions will form between the posterior surface of the iris and the lens capsule. When the pupil is well dilated the iris is compressed into a comparatively small space, and the blood is, so to speak, squeezed out of the vessels. The effect upon the iritic inflammation is the same as would occur from cutting off the blood-supply from inflamed parts elsewhere. The abstraction of blood from the temple by means of the artificial leech is also advisable. Absolute rest of the eyes is imperative, and they should be protected from light.

DR. G. K. JOHNSON, Chairman of the Committee on

REORGANIZATION OF THE SOCIETY,

then rendered his report. It recommended amendments to the Constitution and By-Laws now in force, providing for making the Society a delegated body, and for Sections on Medicine, Surgery, Obstetrics, etc., to hold in certain cases separate sessions. The report was accepted and laid over one year, under the rules.

DR. J. H. CARSTENS then read a paper on

STERILITY.

He discussed very ably the causes of sterility and its treatment, and claimed that its cause existed in the male oftener than is generally supposed, and that where no perceptible cause existed in the wife the cause should be looked for in the husband.

DR. DUNSTER, in discussing the paper, said that the subject had been so well treated that there was but little left to be said upon it. The author had, however, omitted to mention vaginismus, which was not an unfrequent cause of barrenness. The secretions of the vagina are sometimes fatal to the spermatozoa; that many of the physical conditions causing sterility are beyond the control of the physician and surgeon.

DR. OCTERLONY, of Louisville, said a non-retentive vagina, such as sometimes exists as a result of a lacerated perineum, and again in cases where no apparent disease exists in either the male or female, the cause might be found to be the passage of the semen with the urine. Want of vitality in the man or woman, or both, or certain idiosyncrasies, may be causes.

EVENING SESSION.

The President announced the following Committee on

NOMINATION OF OFFICERS

for the ensuing year, viz.:

J. H. Bennett, of Coldwater; Eugene Boise, of Grand Rapids; E. Snow, of Dearborn; C. J. Lundy, of Detroit; G. F. Heath, of Monroe.

The President then delivered his

ANNUAL ADDRESS.

He began by giving something of a history of his medical and surgical training, and he thought that a man who had been a teacher for years, and a successful practitioner of medicine and surgery for twenty-four years, was entitled to an opinion, and the right to express it. He related some cases which had come to him

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for treatment, and supported the idea which had been advocated regarding the establishment of a central hospital for Michigan. This hospital should be located where it would do the most good for the masses of the people. It should be supported entirely by the State, and open to all people on equal terms. He was very grateful to the profession of Michigan, and more especially to the Michigan State Medical Society, for electing him as the President of the Society.

THURSDAY, JUNE 11TH.—SECOND DAY.

MORNING SESSION.

DR. SMART presented a report for the Committee on

MEDICAL LEGISLATION,

with a draft of a bill, and recommended its endorsement.

As a number of amendments were proposed and as considerable time was likely to be consumed in its discussion, on motion of Dr. Whelan, a committee of five was appointed by the President to revise it, and report upon it at 2 o'clock P.M. The President appointed as such committee Dr. Whelan, Dr. Nothingham, Dr. Shepard, Dr. Sharley, and Dr. Smart.

DR. SMART moved that a Committee on State Sanitation be instructed to take such means as are necessary to secure the passage of a bill by the State Legislature, forbidding the

SALE OF NOSTRUMS AND PATENT MEDICINES

unless the composition is on the labels. Carried.

PROF. A. B. PRESCOTT, of Ann Arbor, then read a thoroughly practical paper entitled

SHOULD PROPRIETARY MEDICINES BE REQUIRED TO GIVE AN ACCOUNT OF THEIR CONTENTS.

He took a plain, straightforward view of the matter, and thought that a person who bought any article of merchandise was entitled to know just what he bought, and that it was of good quality and not dangerous to life or health. In France, the maker of any compound is required to bring it before the Academy of Medicine for chemical analysis and therapeutic test before it can be placed before the public, and it seemed to the writer that the people of the State of Michigan were entitled to protection from the imposition of designing mixtures of medicines just as much as any other people, and he hoped that Congress and the Legislatures of the several States would take the matter under consideration.

AFTERNOON SESSION.

DR. VAUGHAN moved that Dr. Hingston, of Montreal; Dr. Octerlony, of Louisville; Dr. Morse, of Ohio; Dr. Moorhouse, of London, Ontario, be elected

HONORARY MEMBERS

of the Society. Carried. Dr. H. E. Smith moved that Dr. Samson, of Ontario, be elected honorary member. Carried.

The Committee on Nominations presented the following list of

OFFICERS FOR THE ENSUING YEAR:

Vice-Presidents.—Drs. P. D. Patterson, J. B. Griswold, J. H. Carstens, and A. W. Alvord.

Treasurer.—Dr. A. R. Smart.

Members of the Judicial Council.—Drs. J. H. Bennett, Wm. Brodie, and E. S. Dunster.

On motion, the report was accepted and adopted.

DR. BENNETT in a few complimentary remarks nominated Dr. E. P. Christian, of Wyandotte, for

PRESIDENT

for the ensuing year. Dr. Snow supported the nomination. On motion, the Secretary was instructed to cast the vote of the Society for Dr. Christian, which duty being performed, President MacLean announced that Dr. Christian was unanimously elected President.

MISCELLANEOUS BUSINESS.

THE SECRETARY and TREASURER then rendered their reports. A balance of $914.17 is in the Treasury.

DR. I. E. BROWN moved that the usual *honorarium* of $100 be voted the Secretary for his services during the past year. Carried.

DR. HEMENWAY, of Kalamazoo, then read a paper upon the

HYGIENE OF STUDENT'S EYES.

He said that from the continued use of the eyes at near vision, myopia, congestion, and inflammation of the eyes, atrophy of the coats posteriorly, and even soft cataract may result.

To keep the eyes in good condition they should be used at near and distant vision alternately.

They should be used less at near vision by those in poor health and by the young, than by the strong, vigorous, and more advanced in age.

Those who are obliged to use their eyes much at near vision, should have a pair of suitable convex lenses, and as soon as pain or a tired feeling about the eye give indication that the organs are being overtaxed, the spectacles should be used. By use of such lenses the eye is put in a state of rest, and myopia and other troubles may be prevented.

Myopia when once acquired can never be cured.

The general health must be cared for, especially the alimentary canal. The eyes will not do good work while the system is not in good condition. As soon as ocular disease shows itself, it must be carefully treated.

DR. C. M. STOCKWELL, of Port Huron, then read a paper on

FUNCTIONAL PARALYSIS (MOTOR AND SENSORY) OF THE EXTREMITIES, DUE TO MALARIAL POISONING.

A record of seven cases was given, six of them were under the writer's care, and were cases observed during the past six years. An analysis of the cases showed:

Various functional disturbances of the nerves in the extremities, shading from a slight coldness and numbness on the one hand to complete loss of both sensation and motion on the other. All four extremities, from the elbows and knees down, were involved in five of the seven cases, the lower extremities alone in one other, and the most of one side in the remaining one. The latter two were cases of both motor and sensory paralysis. The others were chiefly, if not entirely, cases of sensory paralysis. The region over the mental foramen was implicated in three cases; the tongue was attacked in one. The attacks, almost without exception, occurred in the spring and fall.

Imperfectly drained surroundings, cold, dampness,

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over-exertion, and worry, aided in producing the disease and in retarding recovery. Nearly all attacks occurred in the first half of the day. Increase of temperature and pulse was not marked in any case, and almost absent in some. The intellectual faculties were disturbed in no case. No tenderness over any part of the spine could be found. The periodicity was marked, being either quotidian, tertian, or weekly. In one case a paroxysm came on each Thursday morning for eight successive weeks, lasting not over twenty-four hours. In another the paroxysm came on every Tuesday about noon for four successive weeks, besides showing a tendency to recur every other day for one of the weeks.

The cases yielded readily to antiperiodics, and recovery was perfect, and restoration of functions complete.

DR. KIMBALL, of Jackson, invited the Society to hold its

NEXT ANNUAL MEETING

at Jackson.

DR. WHELAN moved that, when the Society adjourns, it be to meet at Jackson, on the second Wednesday of June, 1886. Carried.

After the passage of the usual resolutions of thanks, the Society adjourned at 4 P.M.

NEWS ITEMS.

BOSTON.

(From our Special Correspondent.)

THE INTERNATIONAL MEDICAL CONGRESS.—The following gentlemen have requested to have their names appended to the list of signers to the resolutions adopted in Boston declining to hold office in the proposed Congress as now organized, which appeared in THE NEWS of last week, page 53:

O. W. Holmes, Boston,	G. P. Conn., Concord, N. H.,
William H. Baker, "	F. H. Gerrish, Portland, Me.
David W. Cheever, "	S. C. Gordon, " "
James C. White, "	E. P. Hurd, Newburyport, Mass.,
William F. Whitney, "	Nathan Allen, Lowell, Mass.

THE INTERNATIONAL MEDICAL CONGRESS AND THE MEDICAL PROFESSION OF WASHINGTON.—At a meeting of medical gentlemen, held in Washington, D. C., July 11, 1885, the following preamble and resolution were adopted:

"*Whereas*, Certain changes have been made in the constitution and organization of the Ninth International Medical Congress, which seems to us unwise, injurious, calculated to bring the profession into disrepute, and to endanger the success of the Congress; therefore,

"*Resolved*, That we, the undersigned, decline to hold any position under the said Congress as now organized."

Joseph Taber Johnson,	S. C. Busey,
W. W. Johnston,	H. C. Yarrow,
Swan M. Burnett,	A. F. A. King,
B. F. Pope, U. S. A.,	Frank Baker,
E. Carroll Morgan,	D. Webster Prentiss,
J. Ford Thompson,	S. O. Richey,

D. L. Huntington, U. S. A.

RESIGNATION FROM THE NEW COMMITTEE ON THE ORGANIZATION OF THE INTERNATIONAL MEDICAL CONGRESS.—We are informed that Dr. George J. Engelmann, of St. Louis, a member of the original Committee of seven, has forwarded his resignation to the new Committee.

PUBLIC OPINION ON THE WORK OF THE CHICAGO COMMITTEE.—It was scarcely to be expected that those eminent physicians of Philadelphia, whose action in regard to the organization of the Ninth International Medical Congress we recorded last week, would find themselves alone in the resolve to stand aloof from a gathering which, as is constantly growing more and more manifest, will be an international Congress only in name. As will be seen by our news columns, Boston and Baltimore have promptly followed suit, and, like the Philadelphia resolutions, those passed in Boston and Baltimore are signed by men whose names are indissolubly connected with American medicine. Whether organized action of like significance will be taken in New York and elsewhere, it is impossible to say, but this much is certain, that some of the New York men, whom the new committee of the American Medical Association placed among the officers of Sections, have no sympathy with the ostensible motives—far less with the real motives—which led a little band of malecontents to plot the destruction of the Washington meeting. Even if those gentlemen do not formally express their feelings in the matter, there can be no doubt that they will abstain from any participation in the Washington meeting.

That the wreck of the Congress of 1887 has not been irretrievably wrought, we can see no reason to hope.—*New York Medical Journal.*

This action of the Association can be justified by no reason or argument, and the superlative folly of it is quite beyond the reach of adequate characterization.—*Medical Record.*

The Committee did the work expected of it, and with less malice than would have been possible, but with sufficient thoroughness, we fear, to put an end to the prospects of a successful and creditable *International* Congress . . . Numerous changes and additions were made in the officers and members of Councils of the different Sections. These honors are issued as plentifully as fiat money after a *coup d'état*, and the various geographical divisions of the country are impartially besprinkled with them.—*Boston Medical and Surgical Journal.*

The new Committee has performed the most stupendous work of supererogation ever exacted from a body of intelligent men. We are totally unable to see how the fortunes of the Congress have been a tithe benefited by the changes made. On the contrary, it has suffered immensely in the eyes of all unbiassed thinkers by this unnecessary controversy about representation on Sections and "New Code" principles. As the Congress now stands organized we much doubt its ability to attract that attention as a scientific body it was entitled to. How can those men interested in pure science feel that same interest in the fortunes of an organization handicapped with contentions for offices and ethics, and weighted down with that ponderous body, the American Medical Association? It is truly an unfortunate circumstance which has happened to impair the usefulness of the International Medical Congress. Whilst we still trust that wise councils will prevail, that bitter differences will subside, that men will consent to work together in harmony for the success of the Congress, it seems quite clear to us that the Ninth International

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Medical Congress cannot take the position it would have assumed under its first organization.

It is a sad commentary upon the status of the profession in America that a petty squabble for a few positions should have marred what had promised to be one of the most noted scientific meetings ever held on American soil. What view our trans-Atlantic brethren will take of this status of the Congress it is not difficult to surmise. We presume that the American Medical Association will enjoy the banquet it has prepared to its own eminent satisfaction, whilst the rest of the profession will look on from a distance. We cannot but deplore the present outlook, and profoundly trust that the final result will be more satisfactory than present indications would seem to warrant.—*Maryland Medical Journal.*

We believe the whole trouble has arisen from personal grounds on the part of a few who were overlooked when the places of honor were distributed. It was purely a fight of the "outs" against the "ins," and now that the "outs" have gained the field, the existence of the Congress is jeopardized.

It cannot be claimed that the American Medical Association at New Orleans represented the medical profession of this country, or if the claim be made it is a laughable one. And it cannot be denied that the American Medical Association, with every similar body in the country, is more or less ruled by coteries and cliques. The situation is a deplorable one for the good name of the medical profession in America. Our European brethren will hesitate to attend the Congress at Washington in very large numbers, for they will have reason to fear that the factional feeling and jealousies of certain members of the "rule or ruin" party in the American Medical Association will carry their fight into the Congress itself.

What is to be done to remedy the trouble, and preserve the good name of the profession of America? We do not know; perhaps the best thing that could be done would be to notify the Executive Committee of the last Congress that, owing to the war ranging in the United States, the next Congress should be held elsewhere, either in Europe or Canada.—*Peoria Medical Monthly.*

However proud the West and South may be of their great lights in medicine, it is a fact which need not be minced that these are not numerous. 'Tis true that we can boast of many learned and brilliant men; but, nevertheless, the fact holds, that our original investigators in medical science, and the writers of our classic medical books, are, with a few exceptions, residents of our eastern coast cities. These are the men who have made the fame which American medicine enjoys beyond the sea, and these are they whom distinguished foreigners will expect to meet at the coming Congress. If, therefore, the names of our most eminent authors and discoverers do not appear upon the published statement of the rules and preliminary organization of the Ninth Congress, we need not look for any distinguished delegation from abroad.

The whole blame must rest upon the shoulders of the American Medical Association, who, after appointing a committee of seven wise and eminent men to arrange the preliminary work of the Congress, should have consented to question their judgment and meddle with their work at the instance of a few disaffected but persuasively eloquent fellows.

At the next meeting of the Association there will doubtless be made a sublime attempt to undo the mischief, but nearly two years will then have been lost, with many, if not all, opportunities for making the Gongress a brilliant success.—*Louisville Medical News.*

NOTES AND QUERIES.

THE INTERNATIONAL MEDICAL CONGRESS.

To the Editor of THE MEDICAL NEWS.

SIR: I ask leave to say that I declined signing the resolutions forwarded by your correspondent in this city in relation to the Ninth International Medical Congress, and published in your issue of the 11th inst., p. 53, because they place the blame of the lamentable state of affairs entirely on the action of the new committee at Chicago; while it seems to me, that committee acted simply in accordance with the stringent restrictions imposed upon it by the unwise and revolutionary conduct of the American Medical Association at New Orleans, in nullifying the action of the first committee, and thus opening the Pandora's box of the countless evils now agitating the American medical profession.

The resolutions passed at the meeting of the medical men in Boston, and published on the same page of your journal, meet with my cordial concurrence. With great respect,

WM. T. HOWARD.

181 MADISON AVE, BALTIMORE,
July 13, 1885.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JUNE 30 TO JULY 13, 1885.

AINSWORTH, F. C., *Captain and Assistant Surgeon.*—Relieved from duty at Headquarters Department of Missouri.—*S. O. 93, Department of Missouri,* June 26, 1885.

HAVARD, VALERY, *Captain and Assistant Surgeon.*—Assigned to duty at Fort Wadsworth, New York Harbor.—*S. O. 140, Department of the East,* July 2, 1885.

WYETH, M. C., *First Lieutenant and Assistant Surgeon.*—Assigned to duty at Fort Wayne, Michigan.—*S. O. 140, Department of the East,* July 2, 1885.

TAYLOR, B. D., *Captain and Assistant Surgeon.*—Assigned to duty at Little Rock Barracks, Arkansas.—*S. O. 139, Department of the East,* July 1, 1885.

POWELL, JUNIUS L., *Captain and Assistant Surgeon.*—Ordered from the Department of the East to Department of the Missouri.—S. O. 155, A. G. O., July 9, 1885.

BIRMINGHAM, HENRY P., *First Lieutenant and Assistant Surgeon.*—Ordered from Department of Missouri to the Department of the East.—*S. O. 155, A. G. O.,* July 9, 1885.

OFFICIAL LIST OF CHANGES IN THE MEDICAL DEPARTMENT OF THE U. S. NAVY, DURING THE WEEKS ENDING JULY 4 AND JULY 11, 1885.

SHAFER, JOSEPH, *Assistant Surgeon.*—For duty on board the U. S. Receiving Ship "St. Louis," League Island, Pa., July 10, 1885.

BYRNES, J. C., *Passed Assistant Surgeon.*—Detached from the steamer "Powhatan" for duty at Navy Yard, Norfolk, Va.

CORDEIRO, F. J. B., *Assistant Surgeon.*—To the "Powhatan," as relief of Passed Assistant Surgeon Byrnes.

CURTIS, L. W., *Assistant Surgeon.*—To Philadelphia, for examination preliminary to promotion.

DRENNAN, M. C., *Surgeon.*—Placed on waiting orders.

FITZSIMMONS, P., *Surgeon.*—Duty on Receiving Ship "Franklin," Norfolk Navy Yard, continued until July 1, 1886.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE-HOSPITAL SERVICE, FOR THE WEEK ENDING JULY 11, 1885.

FESSENDEN, C. S D., *Surgeon.*—Leave of absence extended sixteen days, on account of sickness, July 1 and 9, 1885.

BENNETT, P. H., *Assistant Surgeon.*—Granted leave of absence for twenty-two days, July 9, 1885.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLVII. SATURDAY, JULY 25, 1885. No. 4.

ORIGINAL ARTICLES.

THE RELATION BETWEEN CHRONIC OTITIS MEDIA CATARRHALIS AND CHRONIC RHINITIS.[1]

BY CHARLES H. BURNETT, M.D.,
OF PHILADELPHIA.

CHRONIC catarrh of the middle ear—*i. e.*, otitis media catarrhalis chronica (non-suppurativa)—is invariably associated with some form of chronic rhinitis. The latter is usually of the hypertrophic form, since only about four per cent. of all cases of chronic rhinitis are of the truly atrophic form. Hence, in rhino-aural diseases, less than four per cent. will be strictly of the atrophic form, because all rhinal diseases are not followed by aural disease. In my investigations, by applying the term atrophy in a wider sense, so as to include fibrous degeneration and sclerotic catarrh, as I shall show, I have found considerably more than four per cent. (nearly 14 per cent.) of rhino-aural cases, which may be classed under the atrophic form. It will be found that the catarrhal processes in the Eustachian tube and middle ear proceed from those in the nares and nasopharynx, and hence partake of their nature, or that they occur simultaneously with them and are relievable by treatment of the nasal disease; therefore, all cases of chronic naso-aural catarrh—*i. e.*, catarrh of the middle ear—may be divided into two classes, viz., the *hypertrophic* and the *atrophic*. Since atrophic rhinitis may be further divisible into the strictly atrophic, in which there is shedding of the epithelium and exposure of the basement-membrane, and those in which there occurs a fibrous degeneration, a form of atrophy subsequent to a hypertrophic process in the cavernous tissues of the nares, it will be found that the atrophic division of naso-aural catarrh is thus further subdivisible, making, as I have thus intimated, the atrophic class more numerous than it would be if limited entirely by the strictly atrophic form of nasal disease. It must also be borne in mind that, though all middle-ear catarrhs are associated with chronic rhinitis, it is by no means true that all cases of chronic rhinitis cause chronic aural catarrh.

There is constantly observed a train of symptoms in the middle ear and nares common to the hypertrophic class, and also certain symptoms common to these parts in the atrophic form. It is my object at this time briefly to point out these common and consistent symptoms, to try to discover what other aurists have observed, and to suggest and elicit modes of treatment of these numerous and important cases of aural disease.

[1] Read at the meeting of the American Otological Society, New London, Conn., July 14, 1885.

It may have been observed that I have said nothing about the faucial and pharyngeal symptoms in chronic aural catarrh. It is because the nasal symptoms are so much more important—because, in fact, the pharyngeal symptoms, in comparison with the nasal, are unworthy of consideration as causative elements in aural disease.

In order to study the relation between chronic nasal, and chronic aural catarrh, I have taken the last fifty-five consecutive cases of so-called chronic catarrh of the middle ear, as they have presented themselves to me in private practice, and I have found that forty-seven of these presented well-marked symptoms of hypertrophic nasal catarrh, and eight cases presented equally distinct features of atrophic rhinitis as previously defined.

The nares in the first group present the well-known appearances ranging from congestion to that of engorged and enlarged mucous cushions upon the turbinated bones, usually the inferior ones, both anteriorly and posteriorly. These are soft in the early stages, but grow paler and harder in the more chronic forms. The hypertrophy may extend to the mucous membrane on the septum narium. There may also be enchondromata and osteomata in such cases.

Those in the first category, the hypertrophic form, so far as concerns the fauces, present chiefly an active follicular pharyngitis; next in order of frequency, follicular pharyngitis undergoing retrogression towards atrophy; next, a relaxed condition with incipient fibrous degeneration, and in some few cases, especially in children, a pharyngitis with enlarged tonsils, producing mouth breathing. In some few cases the fauces are unaffected.

Tinnitus aurium is not a pronounced symptom in this form of chronic aural catarrh, it may be absent, and it rarely becomes annoying; when it occurs it is of a mild type of the hissing quality. The Eustachian tube is less permeable (from the hypertrophy) than in the atrophic and sclerotic forms, as will be shown later. The hearing is not so profoundly affected as in the atrophic class of aural catarrh, and when impaired is much more amenable to treatment.

The appearances of the membrana tympani are very variable. None of them are sharply peculiar to the hypertrophic form of naso-aural catarrh. In this form of chronic catarrh of the middle ear, both the malleus and the membrana tympani may be found to be immovable under the pneumatic speculum, or the membrana may rise and fall beneath such inspection, the malleus remaining fixed. In fourteen cases the membrana was opaque without retraction in both ears. In three instances, one ear being unaffected, the membrana in the deaf ear showed no pathological change. In ten cases the membrana was retracted and opaque. In five cases the membrana was thinned and retracted and the incus was visible. In seven instances the membrana tympani

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showed no abnormality, but the hardness of hearing was marked. In five instances the membrana was white, thick, and retracted, and in these cases the tinnitus was most marked. It will be shown later that this latter appearance of the membrana is more characteristic of the atrophic form of aural catarrh, in which also tinnitus is a constant and marked symptom. In two cases (associated with enlarged tonsils and mouth breathing in children), the membrana was red and retracted, showing a hypertrophic process in the tympanic cavity. In one instance the membrana tympani was flaccid and thin.

In the *atrophic* class of chronic aural catarrh, the nares are atrophic, their capacity is increased, the mucous membrane over the turbinated bones and septum is pale, dry, and shining, or varnished in appearance in the truly atrophic cases and in the others the mucous membrane is pale and shrivelled with evidences of the previous existence of an hypertrophic process. There is further in the atrophic class a tendency to inspissation and retention of mucus and consequent ozæna. The atrophy is often so great as to permit an easy view of the motions of the soft palate during inspection by anterior rhinoscopy. The pharynx, too, is atrophic, or exhibits a tendency towards that condition, having a glazed or varnished appearance, especially on the posterior wall. In the sclerotic degeneration, also placed in the atrophic group, the fauces may show a fibrous degeneration and sclerosis.

Tinnitus aurium is a most pronounced symptom, and at times of the most distressing quality, in this class of naso-pharyngeal aural catarrh. It is in this group that we find all the distressing cases of tinnitus aurium of the hammering, sawing, harsh quality, associated often with a tendency to nausea and vertigo. In these cases I have observed a constant and curious condition, viz., undue and often excessive patulence of the Eustachian tube. It seems as if the atrophy and consequent widening seen in the nares in these cases, had extended to the Eustachian tube. Inflations, therefore, are disagreeable and often painful, and upon auscultation the air is heard to rush into the middle ear. It has been claimed by some observers (Rüdinger and others), that a sudden, undue, and continued patulence of the Eustachian tube causes peculiar and disturbing subjective sounds in the ear. Some such connection may exist between the excessive tinnitus and the constant atrophic widening of the Eustachian tube in these cases. But, whether the Eustachian tube be less or more closed than normal, resonance of the ear is altered and so-called subjective sounds become audible and annoying. The hearing in these cases is most profoundly affected and least remediable.

In the atrophic aural catarrhs the membrana tympani is more uniform and consistent in its pathological appearances than in the hypertrophic forms. It is either thick, white, and retracted, or it is thinner, but still white and retracted, and in the latter state the incus becomes plainly visible. In those cases in which the membrana is thick, white, and retracted, the precedent hypertrophic process has been most probably excessive, whereas, in the form with the thin and retracted membrana the process probably has been chiefly atrophic from the outset. In one atrophic case the membranes were thick and cutaneous in appearance, and exhibited perforations with cicatrized edges.

Treatment.—The local treatment of these cases, in order to be efficient, must be directed chiefly to the nares. Since the catarrhal process in the ear has its origin in the catarrhal process in the nares, amelioration and removal of the latter will be followed by improvement in hearing, and if the organic changes in the delicate parts of the middle ear have not been too profound, by removal of the deafness.

It will also be found that tinnitus aurium in these cases of catarrhal disease of the Eustachian tube and middle ear, is most relieved by treatment of the catarrhal processes in the nares and nasopharynx. This fact throws force into the argument that tinnitus aurium is a truly objective sound, induced by increased vascularity and the motion of the blood in and near the sound-conducting parts of the ear.

As the congestive state of the vascular tissues near the ear is overcome by treatment, the tinnitus will be found to diminish, and this desired end is often best brought about by local treatment of the nares and nasopharynx.

In some instances the appearance of the membrana tympani becomes, under treatment of the nares and nasopharynx, nearly normal in every way. Whereas, all endeavors to treat chronic catarrh of the middle ear by applications to the external ear surface of the membrana, are worse than useless, since they distort and disturb the membrana and increase the deafness and tinnitus.

Treatment of the middle ear by inflations alone, or by applications to the throat, and by inflations without nasal treatment is either useless or of far less value than naso-aural treatment. In the hypertrophic form of naso-aural catarrh, the treatment may be briefly defined as cleansing and astringent; while in the atrophic form it may be defined as cleansing and stimulant.

In the first class there may be placed the use of sprays of Dobell's solution in its weakest form, and solutions of iodide of zinc, and carbolate of zinc, not more than two and a half grains to the fluidounce in strength. To the fluidounce of water may be added two fluid-drachms of Listerine in the combination with sulphocarbolate of zinc. In the milder forms of nasal catarrh, an excellent spray may be found in equal parts of the distillate of witchhazel and water, and in children's hypertrophic catarrhs, the spray of fluid cosmoline (Petroleol) is most desirable as bland, alterative, and manageable, as it does not flow into the fauces and alarm the patient. In the denser, more chronic, hypertrophic state in the nares, the diseased tissues may be touched with the following preparation of iodine, conveyed to them on cotton by the cotton-holder, under perfect illumination of the nares by the forehead reflector:

℞.—Iodinii cryst. . . . gr. viij.
Potass. iodidi . . gr. xxxviij.
Glycerinæ . . . . f℥vj. —M.

In applying this to the inferior turbinated bones, great care should be taken to make the applications

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to their upper surfaces, and not to touch their lower edges, nor the floor of the nares, as these parts are most sensitive. With these precautions the applications may be carried to the pharynx through the nares. Should smarting be brought about by these applications of iodine to the nares, it may be relieved by the aforesaid spray of fluid cosmoline. When this iodine solution loses its power to excite absorption, stronger iodine solutions may be used, as, for example, equal parts of tincture of iodine and glycerine. These applications shave down, so to speak, the hypertrophy. *No* form of nitrate of silver application is tolerated in the nares in the hypertrophic form of nasal catarrh.

The throat symptoms can be combated by suitable gargles or by direct applications of preparations of tannin or chloride of iron, made by the cotton-holder under illumination from the forehead mirror, directly to the diseased spots, and not by an indiscriminate swabbing, which is as injurious as it is unskilful. The day has gone by, thanks to special surgery of all forms, when diseased tissue is reached by all-embracing applications, which excoriate and cauterize healthy and unhealthy tissue alike.

After suitable applications are thus made to the nares and fauces, the tympana should be inflated. If the catheter is to be used, it is best done before applications are made to the nares, as saving just so much additional manipulation after local medication.

In the atrophic forms of naso-aural disease, the first consideration in treatment is the removal of the inspissated matters, crusts, scales etc., from the nares; this may be effected by the nasal douche, but I prefer other methods. On the whole the best results are obtained by softening sprays and subsequent removal of scales or crusts by proper forceps. After the parts are cleansed and exposed, the mucous membrane may be stimulated by nitrate of silver in powder[1] or in solution. The strength of the latter should never exceed 5 grains to f℥j of water. Preparations of sulphocarbolate of zinc and Listerine are also efficient as stimulants in these cases. The general rules to be observed in treatment of chronic naso-aural catarrh are: 1, in the hypertrophic forms, to allay engorgement, to soothe, at it were, the injected and inflamed parts; and 2, in the atrophic forms, to stimulate the mucous membrane of the nares and fauces. All of these methods must be conducted within reasonable limits.

Another important point is to bear in mind the naturally erectile nature of the tissues in the nares and nasopharynx, and their consequently easy excitability, and also that osmosis is easily effected in these parts.

Hence, in order to prevent this, a solution containing salt, for example, should not exceed 56 grains to the pint. If greater than this, exosmosis ensues and the tissues are drained too much; if less than this, endosmosis occurs, the tissues become distended, and pain and discomfort ensue. And this holds good for all saline solutions.

I have thus sketched very briefly the general plan of treatment in naso-aural catarrhs. When the nasal disease of either form demands more surgical treatment, such as the ablation of hypertrophy, the use of the galvanocautery, or the removal of diseased and necrotic bone, the affection has passed into the territory of the rhinologist.

It will be found, however, that while all chronic, aural catarrhs are associated with nasal catarrh, all cases of chronic rhinitis are not followed by chronic aural catarrh, and it will also be found that the worst cases of chronic rhinitis are usually not associated with aural maladies, and that the rhinitis of aural diseases is of a comparatively milder form than that found in nasal diseases alone.

A word of caution should be said here in relation to the use of the galvanocautery in the nose. It, like the nasal douche, is open to the criticism that, in some cases, it excites an inflammation in the middle ear. Very recently I have seen two cases of acute otitis media following the use of the galvanocautery in the nares for the relief of hypertrophic nasal catarrh. I know this is a small number of cases of inflammation attributable to the use of an instrument so frequently employed not only with benefit to the nares, but without simultaneous irritation to the ears, but in the cases I report I can see no other explanation of the aural inflammations except in irritation of the naso-pharynx, Eustachian tube, and tympanum, set up by the galvanocautery.

Conclusions.—1. That there is a constant causal relation between chronic nasal and chronic tympanic catarrh, in which throat and faucial diseases play only a subordinate part, and this naso-aural catarrh is found under two chief forms, viz., the hypertrophic and the atrophic.

2. It follows that, owing to this close connection between the nose and the middle ear, that treatment of chronic catarrh of the middle ear, to be efficient, must be coupled with that of the coexistent and causal rhinitis, and that treatment of the throat alone is of little avail in chronic aural diseases. Treatment of, and by the way of, the external ear is of course useless. It is also shown that tinnitus aurium from catarrhal causes is best overcome by treating the chronic rhinitis.

3. Since the appearances of the membrana tympani are so variable in the hypertrophic form, nothing can be predicated of the tympanic disease by simple inspection of the membrana. In the atrophic form of chronic aural catarrh, the appearances of the membrana being more consistent and invariable, the surgeon can predicate more of the tympanic disease from inspection of the membrane, viz., that it is sclerotic in form. From this variability in the appearances of the membrana in the hypertrophic form of aural catarrh, it follows that lesions of the membrana taken alone, are of little moment respecting the hearing. The lesions most competent to induce acoustic disturbances are apt to be situate upon the ossicula or upon the inner tympanic wall near the fenestræ.

4. It behooves the aural surgeon, therefore, to inspect and treat the non-surgical forms of nasal catarrh as they occur in chronic catarrh of the middle ear, laying more stress on the condition of the nares

[1] Dr. C. Seiler's formula: ¼–15 grain to 150 grains of powdered starch.

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than upon the fauces, so far as any causal relations between these parts and the deafness are concerned.

THE ETIOLOGY OF TRAUMATIC TETANUS.[1]

BY P. S. CONNER, M.D.,
PROFESSOR OF ANATOMY AND CLINICAL SURGERY IN THE MEDICAL COLLEGE OF OHIO, ETC.

KNOWN from the earliest times, a wound complication of extreme gravity, the subject of many investigations and innumerable papers, traumatic tetanus is an affection respecting the cause and manner of the production of which there is still much uncertainty, and little, we might also say, no definite knowledge. There is therefore full justification for a brief consideration of the views that are held respecting its etiology; the more so as not only is there much advantage in knowing these respecting any disease, but, further, in this affection the adoption or rejection of certain methods of treatment is largely based upon the views entertained as to the cause of the muscular spasms.

The study of any considerable number of reported cases, in which the diagnosis has been correctly made, will quickly convince us that under the generic head are embraced two species, the one characterized by spasms primarily affecting the injured part, the other by those at first located in the muscles whose nerves have origin in the medulla oblongata. At least since the time of the appearance of Colles's paper (1852), there has been, as we believe properly, a disposition on the part of most to regard as cases of true tetanus only those of the last-mentioned kind. And yet, a death-producing generalization of spasms originally local, does, though rarely, take place, and the later stages of cases of this sort are identical with those in which the earlier symptoms were connected with the muscles about the jaws.

There is little or no question that the seat of the disease is in the central organs of the nervous system—scarcely more that it is essentially an exaltation of their reflex irritability: but how is this condition brought about? Is it by the nerves, or the blood-current; by extension of inflammation, by reflected irritation, by septic changes, or by the presence and development of microörganisms? Each of these theories, with the exception of the last, has had numerous advocates, and the arguments therefor have had apparently substantial basis in the symptoms present, the results of treatment, and the pathological conditions discovered upon autopsy. That it is by ascending neuritis that the morbid state of the cord is induced is thus indicated. There is beyond doubt nerve-injury in the original wound, such injury being either of incision, complete or partial, of contusion, of laceration, of puncture, or of compression or irritation from an unremoved foreign body. Resulting therefrom is inflammation of the nerve-cord, either involving its whole extent or macroscopically viewed, affecting parts here and there as it is traced upwards; at times attacking few fibres and discoverable only by careful microscopical examination: such inflammation being indicated by congestion, by exudation, by connective-tissue proliferation, by degeneration of the tubules. Passing to and up along the cord, there are to be found such conditions of the bloodvessels, the coverings, and the gray and white matter as are indicative of inflammation.

The chain would seem to be complete and the correctness of the theory established; but nerves are constantly being injured, yet tetanus is of rare occurrence. In very many cases it has been impossible to discover either neuritis or myelitis; and it seems much like begging the question to claim, as has been done, that in such cases there is pathological change, but of so delicate a nature as not to be discoverable by our present methods of investigation. In the quickly occurring and rapidly fatal cases, there is not time for the development and extension of inflammation. Inflammatory nerve changes have often been observed when there has been no tetanus; and the symptoms of acute ascending neuritis are altogether different. The spinal cord changes in certain cases are much more probably results than causes, due to circulatory states consequent upon the convulsions; in other cases they cannot be distinguished from those repeatedly found associated with diseases unattended by spasms. And, lastly, were an ascending myelitis the determining cause of the irritability, there ought to be observed a progressive involvement of the muscles upward from the level of the injured area which is not the case in true tetanus; or from the feet and legs, if it be true, as claimed (Michaud), that no matter where the wound is located, the most marked pathological changes are in the lower part of the cord.

Fifty years of experience have but confirmed the truth of Travers's declaration, that "The evidence to establish that tetanus has its origin in inflammation of nervous structures has failed."

If not of inflammatory origin, is tetanus a reflex neurosis consequent upon remote nerve irritation? Such is the opinion most generally entertained whether the disease be associated with a wound or occurring idiopathically. It is argued that, as every one knows, peripheral irritation will give rise to movements affecting, it may be, a whole extremity, movements independent of and in spite of the action of the will; that nerve injury and pressure are often associated with localized muscular cramps or jerkings; that the disease is most frequently developed in cases in which, from the character of the wound, the nerves of the part are torn, bruised, or crushed; that not seldom it is found that an irritating foreign body remains in the tissues, and the sharper, the rougher, the more irritating the substance, the greater the likelihood of the development of the affection; that the state of abnormal reflex excitability especially occurs when the wound is in a part in which sensitive nerve fibres are most numerous and of the highest functional value; that it is often so quickly developed that it could be so only through reflex irritation; lastly, that it can be experimentally produced by wounding nerves.

By reflex irritation may properly be explained the manner of the production of the spasms in those

[1] Read before the American Surgical Asssociation, Washington, April 24, 1885.

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cases in which they originally affect the injured part and thence pass upward and outward ultimately to become general. Such progression is strictly in accordance with Pflüger's laws, and, were the cases presenting the phenomena of it other than exceptional ones, perhaps not to be justly considered as those of true tetanus, the theory of radiation from an irritated nerve centre might, without hesitation, be accepted as the correct one. But what is known respecting the physiology of the nervous system does not warrant us in believing that in a healthy individual a reflex irritation, starting, it may be, in the foot or the hand, passing over all the intervening portion of the cord will produce in its upper part an influence that will manifest itself not in a single or in a few eclamptic seizures, but in a persistent contraction of the muscles passing from above downward, sooner or later, in most cases, to become general. If nerve injury is the determining cause, why is the disease so infrequent, attacking but 1 in 200, 300, 500, 1000 of the surgical patients in large general hospitals or of the wounded of modern wars? Surely the assumed exciting cause is often enough present.

Consider for a moment some of the special nerve injuries which have been followed by tetanus. In a few cases examination of the wound has shown nerve fibres included in the loop of a ligature—similar inclusions of nerves of smaller and larger size must have occurred over and again. In how many of the declared cases of tetanus must be seen either spasms beginning in the neighborhood of the wound or a mere association of nerve-inclusion with true tetanus otherwise produced. Even if the freeing of the constricted nerve has put a stop to the morbid condition, in some of the cases at least, study of the reported symptoms will show that there were present only limb spasms; tetanoid, but no more the convulsions of true tetanus than are the stump twitchings which are so often met with.

Again, have hand, and especially foot wounds, that are unquestionably oftentimes followed by tetanus, such danger attached to them as is so generally believed; and if so, is it due to the fact that in these regions are terminal fibres of highly sensitive character correspondingly liable to become irritated? Although it would seem from published statistical tables (*e. g.*, that of our distinguished Fellow, Dr. Yandell), that hand and foot wounds furnish about fifty per cent. of the cases of tetanus that occur, before concluding that such tables establish the excessive danger of injury of these territories, errors of diagnosis must be eliminated and determination made of the number of these wounds in comparison with the whole number of traumatisms occurring. It is in this connection an interesting fact that in over 16,000 wounds of the foot in our late war there were but fifty-seven cases of tetanus, and in perhaps 12,000 or 13,000 of the hand but thirty-seven. Again, in punctures of both hand and foot, it has not been so much when they have affected the sensitive parts of the fingers and toes, but when there has been piercing of the palmar and planter fasciæ that tetanus has been most commonly developed.

If the pressure or more active irritation of a lodged foreign body is the exciting cause, why should it so seldom exert its deleterious influence; and why should the experimental injuries inflicted upon animals so generally fail? In only a very few cases, as those of McDowell and Brown-Séquard, has it been found possible to produce the tetanic state. The results of operative treatment certainly do not lead to the acceptance of the irritation theory. Amputation has seldom relieved, and is favored by few or none at the present day. Nerve section secured 10 favorable results out of 16 cases collected by Letievant, but in at least one-half of the patients who recovered, the muscles first affected were those of the injured parts; and, further, this operation has been performed in too small a number of cases for its statistics to have much argumentative weight. Nerve-stretching, according to Agnew's table, was followed by cure in one-fourth of the cases in which it was tried. But here again, the two classes of spasms have not been separated, and further, in most if not all the successful cases, "internal remedies were also administered." In one of the cases reported as cured by this operation, of which I have personal knowledge, twenty-four hours after the stretching, the spasms were still present in the opposite limb, and chloral and the bromides were steadily administered. It is an interesting fact to notice in this connection, that of the 350 nerve-stretchings for causes other than tetanus given in Agnew's tables, not a single one was followed by tetanus. If such exemption is not accidental, in it is to be seen additional evidence of the correctness of the irritation theory, or was it due to the absence or very limited amount of inflammation in and about the wound, and the great care taken to secure, if possible, primary union?

The two facts that speak most strongly in favor of this theory of reflex neurosis are the excessively quick development of the morbid state in certain cases, and the influence of cold, acting either alone or in conjunction with traumatism. It is certainly hard enough to understand how reflex irritation from a lacerated wound of the thumb could give rise to a tetanus that should kill the subject of it in fifteen minutes from the time of the injury, but much harder to explain the occurrence on any other theory. Unfortunately, Robison's case is very imperfectly reported, so that there is no way to determine whether or not the facts were as stated, and, still more, whether or not very material facts have not been omitted.

The influence of cold has long been believed to be a potent one in the production of tetanus; especially when the low temperature has been associated with much dampness; such influence being most likely to be manifested in regions or seasons in which there is a great difference between midday and midnight heat. Acting locally upon an exposed wound, or generally upon the body at large, it has been held that the cold damp air affects the terminal nerve-filaments, by reflex action arousing an abnormal irritability of the central organs. This may be so; and a like action may result from the high temperature of tropical countries, but as will be seen later, the produced effect may be in consequence of the presence of chemical or living irritants, the development of which is favored by the thermal conditions, aided it may be, when cold is acting, by

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the internal congestions consequent upon the external chilling.

If neither through nerve-inflammation nor reflex action is developed that extreme irritability of the central organs that manifests itself in tetanic spasms, how then can it be induced? Only by changes in their blood-supply; changes either in quantity or quality. Experimentally, convulsions can be produced by overfilling or by emptying, by injection and by bleeding, but such convulsions are not tetanic. Both an hyperæmic and anæmic state of the cord have been repeatedly shown upon autopsy, but here, as always, when diametrically opposite conditions are found, neither can with good reason be regarded as primarily causative. It is not then in the quantity, but in the quality of the blood, that there is to be found what is sought, if the humoral theory be the correct one, in the presence of a septic element developed in the blood or of a special organism coming from without. Neither chemical examination, microscopical investigation, nor experimental injection has, up to the present time, established the truth of this theory,[1] which is rendered probable, if at all, only by reasoning and analogy. That certain vegetable alkaloids and animal poisons entering the circulation so affect the spinal cord and the medulla as to give rise to severe and rapidly recurring, oftentimes fatal convulsions is a fact. In the absence therefore of absolute proof to the contrary, it is not impossible that tetanus may be thus produced. In the wounds that are most likely to present this complication, there is, both in the fluids poured out and in the tissues disorganized, abundant material, by the decomposition of which septic matter may chemically be developed that under favorable circumstances of atmospheric conditions or constitutional state may produce tetanic spasms. Even in a physiological fluid—urine—Gautier was able to find a ptomaine capable of tetanizing animals. Does not the danger of punctured wounds of the fascia of the hand or foot lie in the pent-up fluids rather than in the nerve-damage; and is it not in the pus, the pieces of clothing, the bits of wood that have been found in some of the reported cases, and not in the lacerated nerve-fibres that one should look for the exciting cause of the fatal affection? The veins and lymphatics of the nerves themselves may readily be the channels through which the morbific matter may be carried in; and the anatomical fact that a direct relation exists between the sensibility of a nerve, and the number and closeness of connection of its associated lymphatics, may go far in explaining why tetanus is so frequently associated with slight wounds of parts endowed with high sensibility, as the fingers and toes.

The influence of climatic conditions and atmospheric states may find explanation in their power over decomposition and organic growth, or in the produced constitutional depression of the system, rendering it less resistant to the poison or the germ. Because of such depression we may, perhaps, understand why malaria or scurvy, or anxiety or grief have been found at times conditions precedent to the outbreak of tetanus. When no wound is present, it can only be assumed that it is in the natural secretions that the irritant is developed. The idiopathic cases of the disease are the ones the occurrence of which it is hardest to explain upon the humoral, indeed, upon any theory.

But, it is contended, that were the exciting cause chemical or organic, the disease toxæmic, its attacks should be associated with fever, which is not the case. Yet at times distinct prodromal malaise has been noticed, and exceptionally a marked elevation of temperature. Is fever a necessary result of the presence of poison in the blood, or an essential symptom of a mycosis? For answer, we have but to remember the symptoms of strychnia poisoning, of hydrophobia, and of cholera. Perhaps, as was suggested by Dr. Joseph Jones, in tetanus the frequent absence of high heat has its explanation in the correlated muscular motion that is present.

From time to time reports have been made of greatly disproportionate occurrence of the disease in a single ship of a squadron, building of a hospital, or even bed of a ward. How otherwise than by the presence and action of a virus or a germ can such be explained? That many wounded after a battle or long transport should be so attacked might with more or less truth be attributed to a generally acting atmospheric condition, but not any distinct localization, as it were endemic prevalence, of the affection.

Is it not, then, from very careful chemical and microscopical examination of the secretions of the wound, the tissues in and about it, and the blood of the part and the system at large, that we may hope to receive definite information respecting that which gives rise to this obscure affection? Will it prove to be a peculiar toxic material developing in the breaking down, dying and dead, material, or a specific organism, that will, so far as the cause is concerned, ally tetanus with anthrax, septicæmia, and erysipelas, an organism entering into the open wound, or carried in with the vulnerating body? Whatever it may prove to be, if it is discovered at all, we will hear no more of hypothetical "personal predispositions," or "parts of least resistance," and the treatment will be directed rather toward preventing the development of the poison, the entrance of the microorganism, or the sustaining and quieting the patient until such time as the one shall be eliminated, or the other have completed its life-history.

[1] L. Curtis, of Chicago, thought he had discovered in the blood a peculiar microörganism, but further investigation showed that it was equally present in the blood of a healthy mother and sister of the patient, and in the water of a pond near by.

Arloing and Tripier injected blood from a horse affected with tetanus into the jugular vein of a healthy one, but failed to produce the disease.

AN INTERESTING CASE ILLUSTRATING EMMET'S NEW OPERATION FOR RESTORATION OF PELVIC DIAPHRAGM.

BY J. M. BALDY, M.D.,
OF DANVILLE, PA.

MRS. G., a young German woman, twenty years of age, first child, protracted labor, attended by midwife, child died twenty-four hours after delivery. On

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examination I found the perineum torn to the sphincter, with complete loss of muscular and fascial support in the pelvic diaphragm. There was a large mass of scar tissue over the sphincter, but the recto-vaginal septum above this point was thin, being composed merely of the two mucous membranes. There was a small rectocele with deep lateral sulci, the right being the deepest and longest. The cervix was split bilaterally, flush with the vaginal walls, the lips were everted and eroded, the fundus was retroverted, and the whole uterus low down. Pelvic pains and general reflex disturbances were very marked, incapacitating her for marital relations and domestic duties. So much so that she, on several occasions, left her husband and repeatedly expressed the desire to die.

Her general and local condition improved under treatment, but not to any marked extent. The local irritation and chronic engorgement called loudly for operative interference, to which she gladly submitted.

Both cervix and perineum were closed at the same sitting. The surfaces of the cervical tear were freshened with Dawson's tenaculum-pointed scissors by four clean cuts extending far back into the angles of the laceration, thereby removing a large mass of cicatricial tissue from each angle. The tear was then closed with shotted silk wormgut sutures, securing perfect apposition of the freshened surfaces.

I then closed the perineum according to Emmet's new inside operation for loss of muscular and fascial support of the pelvic diaphragm. The steps of the operation are simple. They consist in passing a ligature through the crest of the rectocele and a tenaculum into the labial tissue on each side directly opposite the lower caruncle. Bringing these three points together will form the triangles to be freshened, as is so fully described by Emmet in the third edition of his work. The triangles were then freshened with curved scissors by means of transverse strips or the "carpet rag" method of denudation. The scar tissue was removed completely to the rectal mucous membrane.

The operation differs from the old one principally in the introduction of the sutures, the denudation differing only in freshening the sulci far up to their apices, and in not freshening labial surface which has not been torn. The stitches were introduced from the apex of each sulcus, forward. A tenaculum was hooked in the apex of one sulcus, drawing the apex backward towards the cervix and thus preserving the line on which the sutures were to be introduced, intact. The first two sutures were passed transversely and were followed by others introduced *forward*, including plenty of tissue, towards the operator, to the bottom of the sulcus, where they were reintroduced and carried *backward*, emerging just beyond the freshened edge of the rectocele directly opposite the original point of introduction on the other side of the sulcus, and thus forming a V-shaped course. Six sutures were thus introduced in each sulcus. When these were drawn up into place and closed, there remained only a small triangular space of freshened surface in front of the rectocele, which was closed by Emmet's crown and two superficial, external stitches.

The crown stitch consists of passing a suture into labial tissue between points of original introduction of tenacula, including the crest of the rectocele. All sutures introduced were of shotted wormgut of the finest quality. In adopting this method of closure, perfect restoration of the perineum and the posterior vaginal wall, which is the natural support of the anterior wall and bladder, was secured.

The amount of discomfort afterward was slight. The knees were not bound together as in the old operation, no opiate was needed, there was no swelling or oozing and very little pain. The bowels were kept soluble and the patient passed her own urine after the first day. Vaginal injections of warm water and astringents were used and a small piece of carbolized gauze, spread with cosmoline, was introduced into the vagina daily. Union was perfect throughout. The external stitches were removed on the eighth day, and the woman was up and around enjoying good health by the fourteenth day.

MEDICAL PROGRESS.

THE HIGH SECTION WITH SUTURE OF THE BLADDER.—G. TILING, in the *St. Petersburger med. Wochenschrift*, 1885, No. 4, advocates, as the result of operative experience, the high section with suture of the bladder.

After the operation by median section the writer observed a prostatic abscess, followed by inflammation of the whole pelvic floor. The whole pelvic diaphragm became hard and rigid, without resulting suppuration. The condition persisted one year; at the end of the second year the symptom disappeared.

This disagreeable experience led the writer to resort, in his next four operations for the removal of large stone, to the high section of the bladder. In a boy, seven years of age, the operation was easily performed without dilatation. The peritoneum was not engaged, and the bladder wound was closed by five silk sutures, which did not involve the mucous membrane. The retained catheter was not required, and the wound united by first intention.

In the second case, a man aged twenty-two years, the extent of the bladder was so limited that the peritoneal fold lay beneath the symphysis pubis. The stone weighed 730 grains, necessitating an extensive vesical incision for its removal. In spite of temporary catheterization, the wound reopened on the sixth day, and eight weeks elapsed before the fistula healed. Two years later an abdominal hernia, half the size of an apple, in part containing the bladder, was developed.

In the third case—the patient was a man thirty-eight years old—the bladder, when full, extended to a point midway between the symphysis pubis and the umbilicus. The anterior wall was, nevertheless, covered by the peritoneum, which extended an inch below the symphysis. The sutures came away on the seventh day. The patient suffered great pain in the region of the right kidney, but was discharged much improved in two weeks, though a capillary fistule still persisted.

In a fourth patient, who from childhood had suffered from pain in the bladder, operation was successfully performed. The peritoneum was situated very high and the incision was closed by eleven interrupted silk sutures, and an additional continuous suture to support

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the former. Union took place in two weeks with the application of a retained catheter.

Although the operation is favorably considered by Tiling, he fails to discuss its difficulties, especially the introduction of the suture, which must be applied in a very contracted space.

In a case elsewhere reported, a fistula, resulting from the operation, persisted, and all means taken to close it were futile, even permanent drainage of the bladder failing entirely.—*Centralblatt für Chirurgie*, June 6, 1885.

TRAUMATIC HERPES CONSECUTIVE TO SURGICAL OPERATIONS AND DENTAL AFFECTIONS.—DR. TH. DAVID summarizes the different forms of traumatic herpes consecutive to surgical operations and dental affections as follows:

1. There frequently occurs, more particularly in women and young subjects, as a result of operations upon the teeth or of affections of the dental apparatus, an herpetic eruption, either upon the gingival, buccal, or labial mucous membrane, or upon the skin of the face.

2. The eruption is either confluent or discrete.

3. It is sometimes accompanied by fever and sometimes exempt from all febrile manifestations.

In the first case it is a species of febrile herpes, or rather a local manifestation of herpetic fever (Parrot), a manifestation determined by a lesion of the dental apparatus.

In the second case it is an eruption originating in a nervous disorder, determined by operations or dental lesions, traction upon the buccal commissure, and by pressure upon the cutaneous and mucous nerves of the face.

4. This latter variety of traumatic herpes, when accompanied by fever, swelling of the face, redness of the skin, may simulate simple inflammation or erysipelas.

5. The affection is not of a serious nature, and disappears after a short duration.—*Journal de Médecine de Paris*, June 14, 1885.

THORACIC ATROPHY IN PLEURISY.—M. DESPLATS, at a recent meeting of the Société des Sciences Médicales, expressed the following opinions relative to pleuritic atrophy of the thorax:

1. Among pleuritics atrophy of the thorax is a frequent and early affection.

2. Such atrophy produces at an early date difficulty in respiration.

3. Later it causes, to a great extent, the deformed thorax, so frequently a result of this disease.

4. And this favors indirectly the deposit and increase of tubercular material.

It is, therefore, necessary—

(*a*) To prevent atrophy, when a predisposition to it exists.

(*b*) To arrest it when established.

(*c*) And, also, to combat it by active treatment, including general tonics and local stimulants, particularly faradization, respiratory gymnastics, and by the use of compressed air.—*Revue de Thérapeutique*, June 15, 1885.

INOCULATION OF TUBERCULOSIS IN THE HUMAN BEING.—E. A. TSCHERNING reports in the *Fortschritte der Medicin*, 1885, No. 3, the case of a young woman, 24 years of age, not scrofulous, who wounded herself on the volar side of the first phalanx of the middle finger, upon a cuspidor containing tubercular sputa rich in bacilli. Fourteen days later there were symptoms of a beginning panaritium. There was no suppuration, but a swelling the size of a pea made its appearance between the skin and sheath of the tendon.

This was enucleated and the wound rapidly healed. Several months later, on examination of the finger, it was found œdematous, and the sheath of the tendon swollen, rendering use of the member impossible. In addition, the cubital and axillary glands were swollen. Enucleation of these glands was deemed advisable, and the operation performed, while at the same time the middle finger was amputated at the metacarpo-phalangeal joint, and the diseased tendon, as well as the somewhat extensive granulation tissue, removed as far as the middle of the hand.

The sheath of the tendon was found by microscopic examination to be filled with abundant granulation tissue, in which were found numerous miliary tubercles, however with not constant central caseation, numerous large cells, and partly central giant cells.

In the lymphatic gland was also found miliary tubercle, which here, as well as in the tendon-sheath in all the sections, plainly exhibited the presence of tubercle bacilli, generally solitary, but occasionally in groups of two or three bacilli. The condition was perfectly in accord with that existing in surgical tuberculosis. Inoculation experiments unfortunately could not be carried out. Two months after the operation the patient was perfectly restored to health, and there were no indications of further lymphatic complication. Up to the present time the case is unique.—*Centralblatt für klin. Medicin*, June 20, 1885.

BILATERAL NEURALGIA AND DILATATION OF THE STOMACH.—MM. CHANTEMESSE and LE NOIR, in an elaborate paper based upon observations made in the clinical service of M. Bouchard, describe a form of bilateral neuralgia due to dilatation of the stomach. The writers consider the symtomatology of the disease as well established, though its differential diagnosis is frequently difficult.

This form of neuralgia is frequently ushered in by a prodromic period, during which, while there is little or no pain, digestive disturbances are more or less marked, but are not appreciated by the patient in whom they are marked by vertigo, pain or loss of sensibility in an arm of some portion of the member, in a finger, or, further, by a sense of constriction of the upper part of the thorax.

Examination will at this stage sometimes discover that for several years the patient has suffered from slowness of digestion and drowsiness after meals. Later on, pain appears as a symptom, at first mild, afterward more intense.

Gastric disturbance now increases, sometimes causing greater distress than the neuralgic symptoms, and examination reveals the existence of gastric dilatation, which is frequently very extensive. This condition is frequently followed by a chain of symptoms, embracing pain throughout the entire body, palpitation, vertigo, and semi-syncopal state, etc.

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That the essential cause of the neuralgia is dilatation of the stomach is evident from:

1. Coexistence of the neuralgia with dilatation of the stomach.

2. The appearance, first, of gastric symptoms, neuralgic phenomena are secondary and are suddenly manifested when the gastric disturbance is exacerbated, and are diminished when this diminishes in intensity. Diagnosis is sometimes assisted by observing that acute neuralgia disappears concomitantly with a notable diminution in the volume of the stomach.

3. The failure of local treatment and beneficial result of means directed to the relief of the stomach.

The prognosis is serious, inasmuch as the presence of such neuralgia is an indication that the gastric disease has reached an advanced stage, and that its cure is difficult, even when the condition of the stomach is capable of great improvement.

Intensity of pain is not of the same prognostic value as is a knowledge of the length of time during which the symptoms have persisted. In acute forms of the disease, which accompany digestive disturbance, their intensity is great, nevertheless they may disappear entirely in a few days.

On the contrary, in the chronic form, the neuralgic symptoms, though slight, persist with great obstinacy.

The therapeutics of the disease is entirely confined to such remedies as are calculated to improve the condition of the stomach.—*Archives Générales de Medicine*, July, 1885.

RESECTION OF THE HUMERUS AT THE SHOULDER-JOINT.—MR. W. I. WHEELER, in *The Dublin Journal of Medicine*, June 1, 1885, reports three cases in which excision of the shoulder-joint was performed, the operation in every instance resulting happily with great improvement in the motions of the arm. His comments on the operation are as follows:

Excision of the shoulder-joint for disease is not so commonly performed as is excision of other articulations, for the simple reason that disease of the articular structures of this joint is not frequent, and when it does occur it often terminates in ankylosis. Again, it is not very uncommon to find that supposed disease of the shoulder-joint is merely caries of the coracoid or acromian process, and that the osseous structures forming the joint are unimpaired; consequently, the removal of such diseased parts will be sufficient; indeed small sequestra, even in the articulation, may be successfully removed without resecting this joint. But there are other causes, apart from disease, which may demand resection of the scapulo-humeral joint, such as gunshot wounds, old and painful as well as compound dislocations, tumors of the head of the bone not cancerous, compound and comminuted fracture of the articulation.

It makes, however, very little difference for what cause we may have to perform excision of this joint, so long as the treatment be adopted which will prove most beneficial to the patient, and which will endow the hand (to which the other joints of the upper extremity are secondary) with the widest range of usefulness.

With regard to the incisions for this operation several have been advocated—the T, the V, the inverted ⅂, as well as the longitudinal incision through the deltoid muscle, which, in his opinion, is the one calculated to afford the best results, and which is therefore the one he practises. There are several movements in the shoulder-joint—as rotation, abduction, elevation, adduction, and antero-posterior movements—and if the deltoid be cut across, the power of abduction and elevation must be lost, but if its fibres are merely divided the probability is that their movements may be retained with regard to the saving of the long tendon of the biceps. He strongly advocates that, when possible, this should be preserved. He is aware that in many cases of disease it is destroyed and good results have ensued, but he has seen more useful arms and more extensive motion follow when it has remained intact. He has not found it necessary to continue making the counter-openings for drainage. The position of the arm is undoubtedly away from the side and somewhat forward; this favors the contraction of the wound, and the bonds effecting repair are shorter.

EXTIRPATION OF THE GALL-BLADDER.—DR. THIRIAR, reports, in the *Bulletin de Academie de Méd. Belgique*, a case of extirpation of the gall-bladder in a patient who, for a long time previously, had suffered from hepatic colic, which resisted all treatment. No gall-stones were supposed to exist in the bladder, but, acting upon the theory that sooner or later calculi would be formed which, through their inability to escape by the common duct, would be the origin of intrahepatic calculi, he advised the removal of the viscus. The operation was performed as follows: the patient having been anæsthetized, an incision was made over the region of the gall-bladder, a short distance from the costal border, and about six inches in length. An incision almost three inches in length was then made transversely to the fibres of the external abdominal muscle, thus making a T-shaped wound. The abdominal cavity being thus reached, the adhesions found to exist between the colon and the liver were carefully broken up and the gall-bladder was found to be flaccid, of a red color, muscular, and with thickened walls. Very little bile was present in the organ and no concretions in the excretory duct. The gall-bladder was intimately adherent to the duodenum. These adhesions were broken up and likewise the organ was detached from the liver. When the cystic canal had been carefully isolated, a ligature of sublimated silk was thrown round its origin beyond its neck, and a second ligature was placed as a precautionary measure a little higher, after having removed the small quantity of bile which was in with it. Excision was now practised between the two ligatures. The lips of the cystic canal were united by fine sublimated silk sutures, and the wound was carefully disinfected by a solution of corrosive sublimate. The edges of the abdominal wound were united by peritoneal, deep, and superficial sutures of catgut. The operation was entirely successful, being followed neither by vomiting, pain, nor fever.

The third day the patient sat up in bed and in six days she was able to walk. Fourteen days she was entirely well.—*Journal de Médecine de Paris*, June 7, 1885.

REMOVAL OF THE OVARIES IN THE TREATMENT OF UTERINE FIBRO-MYOMATA AND PERSISTENT HEMORRHAGE.—DR. SIMON DUPLAY, in a memoir read before the Academie de Médecine de Paris, June 2, 1885, upon

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the removal of the ovaries in the treatment of uterine fibro-myomata and persistent hemorrhage, reached the following conclusions:

1. The ablation of both ovaries is found to be exceedingly beneficial in the case of uncontrollable hemorrhage, symptomatic of the presence of fibrous tumors of the uterus.

2. Although the mortality incident upon the operation is not so great as to be serious, being not in excess of 14.6 per cent., nevertheless, it should not be resorted to until all other therapeutic measures have failed.

3. It is especially indicated in the case of fibro-myomata, great or small, in which hysterectomy is occasionally impossible and always exceedingly grave if not necessarily fatal.

4. In these conditions castration is almost constantly followed by complete cessation of the hemorrhage, and very frequently by a diminution in the volume of the tumor.

5. Castration is contraindicated in very large fibro-myomata and in cysto-fibromata, for which hysterectomy only is applicable.

6. Castration should always be double, and it is advantageous to remove at the same time both the ovary and the fimbriated portion of the Fallopian tubes. —*Archives Générale de Médecine*, July, 1885.

A NEW METHOD OF RELIEVING A COLD.—A writer in *El Siglo Medico* strongly recommends the following as a certain means of relieving the discomfort incident to cold: Pour about a half pint of boiling hot water over about a drachm of pulverized camphor, and inhale the vapors arising therefrom ten to twenty minutes.

Great relief is at once experienced, and after two or three repetitions the discomfort is said to disappear entirely.—*Gazzetta degli Ospitali*, June 21, 1885.

TREATMENT OF SUPPURATIVE MIDDLE OTITIS WITH PERFORATION.—E. GIANPETRO recommends the following treatment of suppuration of the middle ear with perforation of the drum:

℞.—Acid. carbol. cryst. . . . ℥ss.
Aquæ dest. . . . . f℥iij.—M.

S.—Keep in flask for external use. By appropriate tube, at every irrigation not less than a quart of the solution should be used, and its application should be made morning and evening. Immediately after the use of the douche, three or four drops of the following mixture should be dropped into the middle ear:

℞.—Glycerinæ, puræ,
Iodoformi . . . . . ãâ ℥ss.

After cure of the suppurating process, cicatrization of the tympanitic membrane should be promoted by painting the margin of the perforation with iodized glycerine, tincture of benzoin, or with the following mixture:

℞.—Ol. terebinthinæ . . . . ℥iv.
Iodoformi pulverat, . . . gr. xv.—M.

S.—Apply to the margin of the perforation with brush.

Should all effort to cause cicatrization be fruitless, resort should be made to the application of artificial tympanic membrane.—*Gazzetta degli Ospitali*, June 24, 1885.

EPITHELIOMA OF THE CLITORIS: ABLATION AND CURE.—At a meeting of the Société Obstétricale et Gynécologique de Paris, held June 11, 1885, DR. POLAILLON reported a case of epithelioma of the clitoris, in which ablation was performed and resulted in cure.

The patient was a woman, aged seventy years, who entered the hospital complaining of a tumor of the vulva. There was no history or trace of syphilis. The woman pretended to have not been aware of the presence of the tumor for more than three weeks, though she acknowledged that at least two months previously she noticed frequently a purulent fluid and sometimes a little blood, and at the same time experienced pain comparable to the prick of a needle. It is difficult to believe that the vulvar tumor had so rapid a growth. It is probable that it was preceded by a wart or induration which for a long time remained stationary and suddenly took on a rapid growth. The woman was, however, negligent of her person, and her memory seemed much enfeebled.

The tumor occupied the clitoris and the left small lip. It was as large as a hen's egg, mammillated, livid, firm, and excoriated in points. The vulvar secretions, mingled with blood, along with the urine and epithelial débris, moistened its surface and gave rise to a disagreeable odor. The tumor was attached to the pubis at a level with the body of the clitoris, and hung down before the vulvar orifice. The meatus was not involved, and the mucous membrane of the vaginal orifice was normal. The labia majora did not present any suspicious induration, and no involvement of the inguinal glands was evident.

The general health of the patient was good. The tumor continually increased in size, while the pain increased in severity, and operation was decided upon.

After chloroformization, the base of the tumor was cut entirely round by the thermocautery, so as to exceed the limits of the diseased tissue. It was then gradually dissected out with the instrument at a dark-red heat. In spite of such precaution, bleeding was profuse, especially at the base of the clitoris, and five ligatures were required. The tissue removed embraced the whole body of the clitoris, the right lip, the superior portion of the left small and a part of the greater right lip. With a view of restraining hemorrhage by acupressure, three metallic sutures were introduced transversely at the upper portion of the labia majora. A rubber catheter was used in the bladder, and compresses saturated with boracic acid were applied. In three days the catheter was removed, and the fifth day the sutures were removed, hemorrhage being no longer feared. Several times daily the wound was cleansed with the boracic solution. The sixth day, abundant hemorrhage occurred, necessitating the use of an artery *pince*. Cicatrization proceeded gradually, and though the wound was not entirely healed the woman returned home eighteen days after the operation.

Though the patient has never since been seen, M. Polaillon entertains but little hope that the relief afforded will be permanent. In his opinion, epithelioma of the vulva, though rarer than that of the mouth, has the same tendency to recur, and in two cases operated upon, he has observed the return of the disease after a few months, and a similar result seems likely in the third case.—*Archives de Tocologie*, July, 1885.

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THE MEDICAL NEWS.

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SATURDAY, JULY 25, 1885.

CHOLERA PROSPECTS.

THE cholera continues epidemic in Spain, but the press despatches do not indicate its spread in other countries, although it probably exists in the south of France, and any day may bring the news that it has again appeared in Paris. As yet, there are no indications that it has invaded Germany, or that it has appeared in any of the regions from which the main stream of emigration comes to this country, and there is, therefore, good reason to hope that we shall escape a visitation from it this year, or that, at worst, it will only appear at some of our maritime quarantine stations.

The course of the present epidemic in Europe has been exceptional as compared with former outbreaks. For more than a year it has lingered on the shores of the Mediterranean and in the Spanish Peninsula, the furthest point north reached by it having been Paris, where its effects were comparatively small. It does not appear, however, that the disease is any less virulent in type, or that the mortality among those attacked is any smaller than has been the case in previous epidemics, and the meteorological conditions of both the past and the present summer present no peculiarities which would explain the comparative limitation of the disease and its slow spread. All the circumstances seem to indicate that the warning which the nations of Europe received two years ago as to the approach of this disease, and the measures of sanitation which were taken in consequence, have had a good effect.

Of these measures, probably the most important have been those relating to water supply, and those resulting from the general diffusion among the people of the idea that the disease is usually communicated by articles of food or drink, and that, when only such articles are used as have been recently subjected to heat, the danger is small. If to this be added precautions as to disinfection of excreta, and the prompt boiling or destroying of soiled clothing or bedding, which might possibly contain the germs of the disease, there is no doubt that its spread may be greatly hindered, if not entirely stopped. The so-called preventive inoculation of Ferrán appears to have little or no effect as thus far practised.

The work of removing collections of filth, doing away with suspicious sources of water supply, such as wells in large cities, etc., has been greatly stimulated both in England and in this country by the threatened danger, and we probably have yet nine months of grace left for work in this direction, which should be vigorously pushed.

CARCINOMATOUS PYLORUS.

IN THE MEDICAL NEWS for April 11, 1883, attention was called to the different operations that had been practised up to that date for carcinomatous stenosis of the pylorus, and certain conclusions were reached as to the justifiability of the operations and their comparative value. It was then shown that of 60 examples of pylorectomy for carcinoma, 75 per cent. succumbed as the direct result of the procedure; 72.72 per cent. of the survivors suffered from a return of the disease; 27.27 per cent. remained free from recurrence for less than one year; and that not a single patient was permanently cured, or remained well for three years. Of 11 gastro-enterostomies, 72.72 per cent. died, while 3, or 27.27 per cent., survived, but of these 1 succumbed in five months, and 2 were alive at the end, respectively, of two and four months From these data the opinion was expressed that surgical interference in carcinoma of the pylorus should not be countenanced.

We have been led to lay the above summary before our readers in order that they may be enabled to compare the results obtained by surgeons generally with those furnished by VON HACKER from the practice of Billroth, and recorded in the *Beilage Zum Centralblat für Chirurgie*, No. 24, 1885. As is well known, the distinguished surgeon of Vienna has had a far larger experience with gastric surgery than any other individual operator; and although Péan and Rydygier had anticipated him in excising the pylorus, to him must be awarded the credit, if it be a credit, of pushing the operation into prominence. Hence, his experience must be full of interest for the practical surgeon, and particularly for those who intend pursuing their experiments in this field.

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For carcinoma, typical circular resection of the pylorus was resorted to 14 times, with 6 recoveries, and 8 deaths, or a mortality of 57.14 per cent. Of the survivors, 3 died subsequently of recurrence at the expiration, respectively, of four, ten, and twelve months, 1 was living with recurrence, at the end of six months, 1 was living with recurrence in the glands of the groin twenty-one months after the extirpation of a nodule from the abdominal wall, her prolongation of life being four years, while the sixth was alive and well twenty-one months after operation. Hence, these cases show a direct mortality of 57.14 per cent., recurrence in 88.88 per cent. of the survivors, and not a single permanent cure.

Of the gastroenterostomies for carcinoma, 5, or 62.5 per cent., died, and in 3 life was prolonged for several months.

From these data it appears that the mortality of pylorectomy and gastroenterostomy in the hands of Billroth has been less than in the practice of surgeons generally, and that his final results have been as bad as those of other operators. In view of these facts, we still adhere to the opinion that we have expressed on several previous occasions, namely, that surgical interference is unwarrantable in carcinoma of the pylorus.

WHY THE NEW ORGANIZATION OF THE CONGRESS SHOULD BE REPUDIATED.

THE action of a large number of the most prominent medical men of this country, in declining official positions in the American Medical Association Congress, is due in part to disapproval of the rules adopted by its managers, and in part to the fact that these managers are not men who should be endorsed to the world as the leaders of the medical profession of the United States.

In secular politics we are familiar with the spectacle of fairly good platforms, with ring candidates thereon, and occasionally we see bad platforms, with fairly good men endorsing them; but here we have such a combination of bad platform and bad leaders that it is difficult to see how any one can support or work under them.

For the platform the New Orleans Meeting of the Association is mainly responsible; for, although it gave no formal instructions to the Committee, it indicated its wish that the Congress should be put on the same basis as the Association itself; while for the selection of the men to organize the Congress the Committee is alone responsible.

It is true that the New Orleans meeting by no means represented the Association, and was specially packed with delegates from two or three neighboring States, whose chief purpose in being present appeared to be to obtain control of the Congress; so that if a majority of the members of the Association express their emphatic disapproval of the action taken, which we have every reason to believe they entertain, this action will appear before the world in its true light, as the work of a comparatively small faction intensely desirous of office, and not as that of the Association as a whole. It is important, therefore, that this disapproval should be manifest and distinct.

No doubt it is a disagreeable duty to make public the mistakes and shortcomings of members of the profession; it is much easier to keep silent, and it is on this unwillingness of the best men to engage in anything like public controversy that the ring politicians rely. This time, however, they have gone too far, and their condemnation is well-nigh universal.

AN IMPORTANT SOURCE OF PROFESSIONAL HAPPINESS.

WHILE perfect happiness may not be the lot of mortals, probably physicians have as much enjoyment as any similar body of learned and useful gentlemen. Apart from professional study and work faithfully done, there are for the doctor, peculiar sources of happiness—wayside flowers which bloom only by his path. One of these sources is in his correspondence, and as this correspondence differs in subjects, so there are varying degrees of happiness which it gives him.

His morning mail, we will suppose, brings him four letters. The first is from the Universal Utopian Life Insurance Company, and encloses a blank containing various questions as to the professional standing and ability of Dr. A——; as to whether he is expert in physical diagnosis, as to his sight and hearing and as to his moral standing—nothing as yet in the form as to the color of eyes and hair, his complexion, and religious and political proclivities; "your answer will be strictly confidential." Not having seen Dr. A—— for many years, and possibly having only the slightest acquaintance with him, one is often sorely tried to answer the questions so that no injustice may be done either to the economical company which in part trusts you to select its examiners, or, it may be, to a most worthy member of the profession, and it is in the effort, and in the accomplishment of this high end that happiness is secured.

The second letter is from a very clever doctor who wishes you to recommend him for an office; he is weary of professional life, and burns with the noble desire to serve his country at Washington, or in a foreign consulship. How delightful it is to assist him in his lofty ambition, especially when he requests you to append your signature to the letter of recommendation, a statement of such titles as you may have, thereby impressing with your consequence the powers that be, who otherwise probably do not know

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you from any other son of Adam. The mere accidents or adventitious circumstances of your life are thus used to help him. Of course, it delights one to comply fully with the instructions.

The third letter is from a doctor who desires you to diagnose a case of which he gives you a meagre history, often confused by non-essential opinions and facts, and also to suggest a plan of treatment. With the patient before him and ample opportunity for thorough examination he has failed, but depreciates his own ability, and exalts yours in supposing that you will succeed without such opportunity. The compliment thus paid is very high and is received with great gratitude. In your earnest study of the case as presented by letter, the mind is quickened, knowledge revived or sought, feelings of benevolence and kindness excited—a sincere desire to help your professional brother and a suffering fellow being exercised—and hence an unfailing joy.

But the fourth letter lifts you to the highest altitude of happiness. It comes from a reputable member of the profession who believes that all professional truth is to be reached by arithmetic; statistics are the alpha and omega of his life; only have enough figures properly arranged—columns broad enough and long enough—and the human race will be lifted to dwell forever in the clear and serene light of perfect knowledge.

Undoubtedly statistics have their value in medicine, but they must include only essential facts; they must relate to cases the conditions of which are like, they must be furnished by competent observers, and their accuracy secured by an actual record of observations made at the time of the occurrence of the cases, not trusted to uncertain memory; finally, they must be used, when collected, for the acquisition of truth, not for the establishment of a preconceived theory. How often, however, does the series of questions which the seeker for statistics presents you show that he is endeavoring to sustain a particular plan of treatment, instead of being, for the time, an intelligent, just, and unbiased judge; or else it contains interrogatories, some pertinent, some impertinent, hypotheses probable and improbable, possible and impossible, consistent and inconsistent. Dr. A——, for example, is preparing to read a paper upon diarrhœa before a local, State, or national organization, and his questions run possibly somewhat thus: How many cases of diarrhœa have you seen in your ten, twenty, or forty years professional life? Was heredity a factor in the production of the disease? If your answer is negative, do you not believe it might be in some cases? Do you believe microbes are the essential cause of the disease? If green apples were the exciting cause, specify the number, kind, and size of the apples; if the disease was attributed to "teething," please state the particular teeth concerned. What were the thermometric, barometric, and ozonic observations made when the disease was most prevalent? Do you believe that the induction of premature labor is advisable in some cases of obstinate diarrhœa? If premature labor be induced, would you use two ligatures or one for the cord? Please give the hygienic and therapeutic means which you have found most successful in the treatment of diarrhœa. Have you ever used germicides in the treatment?

Other questions of equal pertinence and importance are presented, and to answer fully all requires a large amount of patience and prolixity, and some pages of manuscript. But patience, prolixity, and pages are cheerfully given in the desire to gratify, it may be, a most worthy member of the profession, and to promote medical progress, while the proud consciousness of having done this affords unspeakable pleasure.

THE PALL MALL GAZETTE'S EXPOSURE.

THE recent exposure by the *Pall Mall Gazette* of a form of horrid licentiousness frequent in London has startled the world. That female virtue should be made merchandise, be bought and sold like the commodities of life in the world's great metropolis, does not speak well for the progress of the race or for the power of Christianity. Paganism in its worst estate could hardly be worse. In our own country when some licentious wretch, maddened by more than brutal instinct, rapes maiden or matron, it is not unusual for the swift vengeance of a mob to inflict death, in some cases preceded by cruel tortures, upon the criminal. But in London we have a similar crime annually committed upon hundreds and even thousands of young girls whose poverty and friendlessness have rendered them comparatively helpless, or who are blindly lured to their ruin—if need be, their very cries of remonstrance stifled, and resistance overcome by force—and English law seems utterly powerless to avenge their wrongs, or secure to others adequate protection. Beer and Britainism, according to Sidney Smith, are inseparable ideas. Licentiousness and London will also become as inseparable if the condition of things made known by the *Gazette* continues.

"The gods are forever just," exclaims Carlyle in his life of John Sterling. Would that this gruff immortal were still in the world to pour upon the perpetrators of these black crimes his fierce invective, and rouse the English nation to demand of their rulers suitable protection for the daughters of the people.

The revelations made by the *Gazette* affect medical men. One of the villainous debauchees who was a liberal purchaser of these unfortunate girls, consigning "to fate worse than death" hundreds of them,

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is said to be a doctor. The certificates of virginity which were necessary to secure the sale of the unhappy victims of cruel lust, were given by physicians after examination. That medical men should descend so low as to be the paid panderers to shameless licentiousness, is surely a matter of reproach to the profession. London physicians of repute owe it to themselves, to the profession at large, to society, and to the world to discover, to expose, and to banish forever from their association those who have thus contributed to this damnable traffic.

We do not doubt that good will come from the exposure made by the *Pall Mall Gazette*. The electric light is a powerful aid to morality, and so when the light of knowledge shines in upon London's habitation of cruelty, and nefarious practices are thus publicly known, the intended victim will be warned and made wary, the criminals deterred in some degree, and the crime become less frequent.

Moreover, a purer, healthier public sentiment will be created, a sentiment that will serve the enactment and enforcement of just laws for the protection of female virture, and that will visit with condign punishment, social or legal, if not both, those who sacrifice virgin purity for the momentary gratification of sexual passion.

REVIEWS.

TOPOGRAPHICAL ANATOMY OF THE BRAIN. By J. C. DALTON, M.D., Professor Emeritus in the College of Physicians and Surgeons, New York. 4to. pp. 175. Pl. xlviii. Philadelphia: Lea Bros. & Co., 1885.

When one has a specially dainty morsel he is apt to reserve it to whet a declining appetite. So on our table has lain for some time this exquisite monograph of Dr. Dalton's on the Brain. We have just spent the first of many delightful hours in studying anew the anatomy of this forbidding yet ever alluring organ.

When Dean, in 1863, published his photo-lithographs of the medulla oblongata, they were a great advance on any previous attempts at exact reproduction of sections of the nerve-centres. But twenty years have seen great improvements in our means of embedding and section-cutting and in the heliotype process for reproducing photographs. The result is, such a series of plates that enable us to study, at leisure and with exactness, the details of structure of the brain seemingly impossible of reproduction, and, in fact, we believe abandoned as hopeless even by the Smithsonian.

The author has given us three series of plates, first, of the various surfaces of the brain, with three sagittal sections of one hemisphere; secondly, horizontal sections; and thirdly, vertical transverse sections—each of the last two at five millimetres' interval. We only regret that a few more plates have not been added, showing systematic sagittal sections of one-half of the brain at five millimetres apart, to complete the series.

The first plate, in its relief, is a wonderful fac-simile of the brain. As in each of the others, it is faced by an outline explanation-plate in addition to the text, which facilitates its study. The delicacy of tinting is shown by nearly all of the others, but especially by those showing faint outlines of the various gray nuclei and the gray substance of the cerebellum.

No one can study the brain accurately without this work, and especially no teacher should fail to possess a copy. It inaugurates almost a new era in anatomical text-books on this subject. As a specimen of book-making it is exquisite. We are both glad and sorry to learn that the moderate edition is already very nearly exhausted.

SOCIETY PROCEEDINGS.

AMERICAN OTOLOGICAL SOCIETY.

Eighteenth Annual Meeting, held at New London, Conn. July 14, 1885.

(Specially reported for THE MEDICAL NEWS.)

THE Eighteenth Annual Meeting of the American Otological Society was held at the Pequot House, New London, Conn., on Tuesday, July 14, 1885, beginning at 10 A.M., THE PRESIDENT, DR. CHARLES H. BURNETT, of Philadelphia, in the Chair.

Twenty-seven active members and one honorary member were in attendance.

THE PRESIDENT announced the decease of two members, Dr. John H. Dix, of Boston, Mass., who had been a member since 1868, and Dr. E. T. Ely, of New York, who had been admitted to the Society in 1880.

DR. S. SEXTON, of New York, presented a paper on

INFLAMMATION OF THE ATTIC OF THE TYMPANUM.

He considered the disease under two headings, acute and chronic inflammations of the attic. The latter form, presenting itself as deep sinuses, containing polypoid tissue, crusts, pultaceous matter, etc., leading from the inner end of the canal up into the attic, into the antrum, and sometimes through the membrana flaccida, is often the result of acute inflammation in early life. A minute anatomical description of the atticus tympanicus was given.

Acute inflammation of the attic may follow catarrh of the head, the exanthemata, the entrance of fluids propelled along the Eustachian tube in bathing or from the use of the nasal douche. The frequent occurrence of inflammation of the attic from these causes is readily accounted for, when we remember that the Eustachian tube at its tympanic orifice opens by a free sweep into the attic as well as into the antrum. Irritating fluids seem to be better borne in the lower than in the upper part of the tympanum. Inflammations of the attic may be simultaneous with, consecutive to, or independent of, the inflammation of the antrum. It is the more serious from the fact that swelling of the mucous membrane clogs the outlets and prevents drainage. In such cases the membrana flaccida is red, the vascular turgescence extending above into the external auditory canal, and sometimes downward along the short process of the malleus. The inflammation may extend beneath the margo tympanicus of the auditory plate, followed by effusion of serum and blood, pressing away the membrana flaccida and integument of the canal, producing

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a bulging sac, so great sometimes as to conceal entirely from view the membrana tympani, and may even entirely fill the canal, and present at the lumen as a purplish tumor. In some cases rupture of some bloodvessels of the tympanic plexus takes place, producing sudden extravasation.

Periostitis of surrounding parts may occur and extend along the surfaces of the canal, the mastoid or squamous portion of the temporal bone. In nearly all cases inflammation extends into the antrum and mastoid cells, or those overlying the external auditory canal or in the tegmen. If the escape of secretions into the antrum or the Eustachian tube is prevented, the case is more severe, and extension to the cranial cavity more to be feared. Inflammation of the antrum often persists after the tympanum has healed, drainage taking place through the Eustachian tube or by a sinus through the cortex of the mastoid.

For treatment, Dr. Sexton relies upon drainage and the employment of such constitutional remedies as tend to check the inflammation and prevent the formation of pus, as mercury and calx sulphurata, etc. Owing to the difficulty of making an accurate differential diagnosis between the pains of pachymeningitis and neuralgic pains of otitis media, the surgeon should be very cautious about trephining the mastoid, when pain is the only indication. If pachymeningitis has appeared, it is evidently useless to trephine.

DR. D. B. ST. JOHN ROOSA, of New York, said that the remedies mentioned are not in common use in the way he recommends them. He has used mercury in doses of $\frac{1}{10}$ to $\frac{1}{8}$ grain, and also sulphide of calcium, but without any favorable effect. He considers a warm room, a good nurse, taking care of the bowels, and local measures, as the most important, while the external treatment may be of an expectant nature. He asked Dr. Sexton to describe a case, indicating the manner in which he would use these remedies.

DR. SEXTON answered that he gives the remedies in small doses, but frequently repeated. The moment there are symptoms of purulency, he uses the calcium sulphide, which, he believes, controls the process. It has been used by Ringer and Otis in suppurative affections in other parts of the body. Under its use, Dr. Sexton has seen congestion and swelling over the mastoid disappear.

DR. J. A. ANDREWS, of New York, showed an illustration of a case in which the inflammation was most intense in the upper part of the tympanic cavity, and a perforation was established between the mastoid antrum and the external auditory canal. The latter was very much swollen, and showed a fluctuating in the superior portion, which he incised, liberating a considerable quantity of blood and pus. A good recovery was made. Two months later almost the entire canal was occluded by a membrane, which has since disappeared without operative treatment.

DR. POMEROY asked Dr. Sexton whether he believed the administration of mercury in these cases relieves pain when there is pain, and, if so, what is the theory of its action.

DR. SEXTON replied that he had never used it exclusively for that purpose, neither did he recommend it for this purpose. He would rather employ aconite or pulsatilla, especially the latter. He also feels certain that the sulphide of calcium, when given alone, would relieve pain.

DR. AGNEW thought that when there is acute otitis media it is desirable to cut it short as soon as possible. In a case of beginning otitis media, he would give fifteen grains of calomel and a Turkish bath, if accessible. He asked Dr. Sexton what his treatment would be in a case of acute otitis media catarrhalis in an infant six months old.

DR. SEXTON said he would ascertain the general condition, with regard to catarrhal trouble, dentition, previous attacks of inflammation of the ear, etc. If there were an accumulation, he would not hesitate to let it out. But in the majority of cases at this age rupture has already occurred when the patient comes under observation. If there were suppuration, he would give calcium sulphide; if simple catarrh, he would give mercury.

DR. C. J. KIPP remarked that nothing had been said of inflation which will relieve the pain of the middle ear. When there is protrusion of the membrana tympani, incision will give relief to the suffering.

DR. S. THEOBALD had used the solution of atropia, 4 grs. to the ounce, and in combination with the internal administration of cathartics, with great benefit. He also spoke very highly of 15 grain doses of pyrophosphate of soda.

DR. C. J. BLAKE, of Boston, spoke of the important role played by the reduplication of the mucous membrane in the upper portion of the tympanum, which he has found in 15 or 20 per cent. of 200 cases examined, and which may tend to retain secretions. In some cases of acute congestion of the upper portion of the tympanic cavity he has observed a history of over-strain and nervous exhaustion, suggestive of the acute pneumonia found with precedent history of nerve-exhaustion. In these cases an incision along the line of the posterior fold is followed by improvement in the symptoms.

DR. SEXTON said, in conclusion, that from his experience during the last ten years he would give up local applications rather than the internal remedies he has recommended in his paper.

DR. W. W. SEELY, of Cincinnati, read a paper on

THE TREATMENT OF CHRONIC OTITIS MEDIA.

He felt constrained to condemn the slurring of some cases of chronic otitis media catarrhalis by specialists in various ways, as by putting the catheter of the balloon in the hands of the patients. He claimed that this class of cases is always amenable to treatment, and that only time and patience are necessary to manage them.

He believed the attention of the general profession is becoming too much centred on the Eustachian catheter as the only means of opening the tubes. Often catheterizing does more harm than good; and some application of boric acid and vaseline, or, still better, of yellow oxide of mercury, will open the tubes when the catheter has little or no effect. He said that salves have almost, if not quite, supplanted all other applications for nasal and naso-pharyngeal troubles.

He concluded his remarks with the following:

1. That only experience of sufficient length of time (often lasting over months) in each case can determine whether treatment shall be continuous (daily) or interrupted—*i. e.*, perhaps daily for a week, followed by an interruption of some weeks or months.

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2. Only experience in each case can inform us whether treatment is to be entirely directed to the middle ear or entirely to the nasopharynx, or combined against both.

3. Only experience in each case can inform us whether injections into the tympanic cavity are called for. Under this head it was stated that direct medication either of the middle ear or nasopharynx, as routine treatment, is unwise, till simple inflation has failed.

4. Mechanical dilatation of the tubes is rarely necessary or advisable. Only in extremely dry states of the tube is dilatation followed by much good success.

5. Hearing tests are not reliable, and hence patients with great deafness, great loss of bone-conduction, etc., should not be sent away till the test by trial has been gone through with.

6. Simple inflation failing, the greatest attention should be given to the nasopharynx, even though it be in an apparently fair condition.

7. Syringing, douching, and swabbing the nasopharynx should be abandoned.

DR. CHARLES H. BURNETT, of Philadelphia, read a paper on

THE RELATIONS BETWEEN CHRONIC CATARRHAL OTITIS MEDIA AND CHRONIC RHINITIS.

(See page 57.)

DR. C. R. AGNEW, in the discussion on these two papers, remarked that he thought there was an anatomical objection to the use of salves, and that it was impossible to apply them to the whole of the diseased surface. He has used the nasal syringe for twenty years, and is not prepared to accept the law that it should be abandoned. He is more willing to agree with Dr. Burnett, but believes that more stress should have been laid upon the most important part of the treatment, *i. e.*, the hygienic part.

DR. ST. JOHN ROOSA thought, with the last speaker, that the principal and the only benefit to be obtained in the majority of these cases is by proper hygiene. He does not believe it necessary to continue our examination very long, or repeat them very often, to determine whether or not we may expect to give the patient any relief. If he finds diminished bone-conduction, he thinks it is unnecessary to go on treating the patient.

DR. E. WILLIAMS, of Cincinnati, had been in the habit of freely using the Eustachian catheter, and frequently introduces with great benefit to the patient a flexible bougie through the catheter.

DR. H. KNAPP said that when lately suffering from a catarrhal affection, causing sometimes considerable annoyance, he had employed, with considerable advantage, a salve of iodoform and vaseline.

DR. SEELY had adopted the use of salves as a routine treatment, and has had more satisfaction than by any other treatment. They remain longer in contact with the affected parts than solutions, thus giving a more decided effect.

AFTERNOON SESSION.

DR. S. SEXTON presented a *Conversational Tube* for the aural instruction of deaf-mutes. By means of this tube the pupil will hear his own voice and compare it with the voice of the teacher.

INSTRUCTION OF DEAF-MUTES.

PROF. A. GRAHAM BELL, Honorary Member of the Society, called the attention of the members to the large number of children who were classed in institutions as deaf-mutes, but who, under proper treatment and education, could be made simply hard-of-hearing members of society. He also referred to the importance of otologists' formulating a list of causes of deafness, to which principals of institutions might refer for the proper legislation in institutions for deaf-mutes, while as now the legislation only gives the causes as obtained from parents or friends.

DR. CHARLES J. KIPP, of Newark, N. J., reported

A CASE OF FATAL EAR DISEASE, BEGINNING AS A CIRCUMSCRIBED INFLAMMATION OF THE EXTERNAL AUDITORY CANAL.

The patient was a married woman, twenty-three years old. She was first seen nine months before her death. Since previous confinement, occurring four months before she came under observation, she had suffered occasionally with severe pains in and about the left ear. There were swelling and redness of the posterior upper wall of the external canal. No perforation and no otorrhœa. Under the use of leeches, instillations of morphia, and inflation of the middle ear, there was decided improvement when she passed from under observation. Eight or nine months later the pain again appeared shortly after confinement, which was found to be due to furunculosis of the external meatus. There was no evidence of disease of the tympanum or the middle ear. An incision was, however, made in the membrana tympani, but nothing escaped. The swelling of the meatus soon subsided, but the patient continued to complain of severe headache. The pain, however, was not in the mastoid region, nor was there any tenderness on pressure. She gradually failed and soon died.

At the autopsy there was found evidence of intense inflammation over the entire extent of the arachnoid and pia mater. There was a collection of pus immediately over the posterior surface of the petrous portion of the temporal bone. Pus was also found on the pons Varolii. A small abscess was found in the anterior part of the left lobe of the cerebellum, near its junction with the pons. The mastoid cells were filled with pus, and only a thin exudation was found in the middle ear.

DR. BURNETT reported a case similar in many respects, in which the patient died from what was diagnosed as cerebral abscess. No autopsy could be obtained.

DR. E. E. HOLT, of Portland, Maine, reported on the present condition of the patient from whom the

TERATOID TUMORS

were removed. This case was fully reported at the meeting two years ago. For one year the patient remained free of the disease, when it reappeared, and since has progressed rapidly.

DR. CHARLES H. BURNETT presented a paper on

THE LOCAL USE OF COCAINE AND BRUCINE IN DISEASES OF THE EAR.

He had tried both the sulphate and the hydrochlorate of cocaine in painful affections of the ear to produce anæsthesia. He finds neither efficient when the pain is

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due to inflammation in dense tissues of the external auditory canal, as in furuncles of this part, nor when acute inflammation occurs in chronically thickened periosteal and mucous tissues in the tympanic cavity. The hydrochlorate of cocaine, however, is efficient to induce local anæsthesia in 4 per cent. solution, in cases of not excessive congestion of the skin of the fundus of the auditory canal and in the membrana flaccida of the drum-membrane, as is observed in acute coryza, and attended by pain of a not continuous nor intense variety.

The solution may be applied to the inflamed tissues either by mopping it gently upon the affected portion or by soaking a small dossil of cotton and laying it upon the seat of inflammation, both procedures being done under perfect illumination of the fundus of the auditory canal, by means of the forehead mirror. But solutions of cocaine are not competent to produce local anæsthesia in the external auditory canal profound enough to permit painless incisions into it. Local anæsthesia in the membrana tympani preparatory to paracentesis is not required, as the operation is not painful enough to demand local anæsthesia.

With regard to brucine, Dr. Burnett thinks that either in solutions of the alkaloid or of its nitrate or sulphate it has a useful future in the treatment of pain in the ear due to inflammation of the skin in the meatus and auditory canal, and in acute inflammations in chronically inflamed periosteal and mucous tissues of the fundus of the canal and the tympanic cavity.

DR. E. E. HOLT, presented a paper entitled

DOES COCAINE HYDROCHLORATE, WHILE RELIEVING THE PAIN IN ACUTE OTITIS MEDIA, PROLONG THE CONGESTION?

This question occurred to the writer several times where he has used the remedy for relief of pain in the middle ear. He was satisfied that while cocaine relieves the pain and for a while holds the inflammation in check, after its effect has passed off the inflammation goes on unabated, even loss of hearing seems to be more intense.

DR. THEOBALD said that he had found that in the nasal passage the drug asserted the same effect. Though at first it relieved congestion, it was greater afterward.

DR. ORNE GREEN had derived very little benefit from its use.

DR. D. WEBSTER had seen decided benefit in the removal of polypi of the meatus.

EVENING SESSION.

DR. H. KNAPP, of New York, read a paper on

THE DESIRABILITY OF ADOPTING A UNIFORM METHOD OF EXPRESSING THE RESULTS OF TESTING THE ACUTENESS OF HEARING.

He said he differed from the opinion expressed by Bazold in a recent article published in the last number of the *Zeitschr. für Ohrenheilkunde*, that the ordinary speech and still more the whispered voice are the best hearing tests at present at our command. He thinks this test alone is insufficient for a correct estimate of the patient's hearing, as we would fail in many cases to detect the beginning of deafness, that stage when treatment is more important and more successful than in the later stages. The voice test should be supplemented by the test of the watch or Politzer's hammer. He, therefore, rejects Bezold's proposition to use the whispered voice as a uniform hearing test. Politzer's hammer he considers an excellent test, but, as Roosa remarks, it has no advantage over the watch. It has moreover the disadvantage, that its hearing distance, 15 metres, is too great.

Dr. Knapp proposes the use of the watch and the voice combined, the result to be registered in the manner proposed by Dr. Grout and himself thirteen years ago, as fractions of the normal standard, and gave a series of symbols, which he submitted to the Society for their consideration.

DR. ROOSA proposed that Dr. Knapp be requested to present the proposed system of recording the hearing to the meeting of German Naturalists at Strasbourg, next year, which was unanimously adopted, as also a motion by Dr. Orne Green, that a committee be appointed consisting of Drs. Knapp, Roosa, and Prout, to report in 1886 on a uniform system of recording the hearing power.

DR. D. B. ST. JOHN ROOSA, of New York, read a paper on

PRESBYKOUSIS.

This term was applied to senile impairment of hearing not dependent upon inflammatory affections. It comes on after the age of forty or fifty. Such persons do not hear well in a noisy room, and hear the watch badly, but they can hear quite well in a quiet room. In inflammatory diseases the person can often hear pretty well in a noise, while in a quiet room he hears badly. Three conditions go together, diminished bone conduction, hearing worse in a noise, and the disproportion between hearing the voice and the watch.

DR. KNAPP thought that the term presbykousis, if used in analogy with presbyopia, was not a good one, as it would indicate a diminished range of accommodation of hearing which would refer more to pitch than to anything else. What is meant is senile involution occurring in every organ.

DR. ORNE GREEN had been considering the subject some time and had arrived at the same conclusions as Dr. Roosa.

DR. HOLT had examined a large number of persons with ear disease who claimed they could hear better in a noisy than in a quiet room, but was unable to find that this was correct. He referred to a report of such observations made two years ago.

DR. ROOSA defended his position with regard to the term presbykousis, he said, with regard to hearing a noise, that he was convinced that patients with tympanic disease could hear better under such circumstances, and cited the example of a lady who heard with difficulty under ordinary circumstances, but in a boiler shop she heard the ordinary voice distinctly, while her husband with normal hearing, could only hear loud-spoken words.

DR. E. DYER, of Newport R. I., made a verbal report of a case of *Fistula Auris Externa* in a girl of fourteen relieved by galvanocautery.

The following papers were read by title:

Two Cases of Neglected Ear Disease in Infants, Resulting in Death, by Dr. S. Sexton, of New York.

A Case of Chronic Otitis Media Suppurativa Resulting in Cerebellar Abscess, with the Autopsy, by Dr. O. D. Pomeroy, of New York.

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Otitis Media Suppurativa; Mastoid Disease and Pyæmia; Mastoid Operation; Recovery, by Dr. Graham Bacon, of New York.

Dr. Sexton exhibited a glass ear syringe and an ear forceps with several attachments.

The following officers were chosen for the ensuing year.

President.—D. J. S. Prout, of Brooklyn.

Vice-President.—Dr. S. Sexton, of New York.

Secretary and Treasurer.—Dr. J. J. B. Vermyne, of New Bedford, Mass.

Committee on Membership.—Drs. W. H. Carmalt, Ch. J. Kipp, S. Theobald.

Publishing Committee.—Drs. J. J. B. Vermyne, C. J. Blake, J. O. Green.

A vote of thanks to Dr. C. H. Burnett, the retiring President, for his excellent services was unanimously adopted, and the Society then adjourned.

AMERICAN OPHTHALMOLOGICAL SOCIETY.

Twenty-first Annual Meeting, held at Pequot House, New London, Conn., July 15 and 16, 1885.

(Specially reported for the MEDICAL NEWS.)

WEDNESDAY, JULY 15TH.—FIRST DAY.

MORNING SESSION.

THE PRESIDENT, DR. WILLIAM F. NORRIS, of Philadelphia, called the meeting to order at 10 A.M. After an address of welcome the usual committees were appointed.

DR. C. R. AGNEW, of New York, read an interesting paper on

A NEW OPERATION FOR THE REMOVAL OF A DISLOCATED CRYSTALLINE LENS.

The lens is transfixed by thrusting an instrument, consisting of two needles of a certain length, fastened in a Sand's needle-holder. A flap wound is made in the cornea, somewhat more extensive than in the ordi nary cataract operation. After the iridectomy the now fixed lens is removed with a scoop, without loss of vitreous. The procedure is simple, and Dr. Agnew thinks one need feel no hesitation in performing the operation. It is especially useful where the vitreous is watery. Dr. Agnew calls the instrument a bident. It was used on one case only, which resulted favorably.

DR. D. WEBSTER, of New York, followed in a paper in which negative results followed this same operation, admitting that it was on account of not being able to manipulate the instrument properly. The lens was delivered with a scoop with a slight loss of vitreous. The patient obtained $\frac{20}{C}$ vision. Dr. Webster remarked that the invention of the instrument will save many eyes which are now condemned to enucleation.

DR. H. KNAPP thought the operation an injurious one, and said that he had no trouble in extracting a dislocated lens by digital manipulation.

DR. E. WILLIAMS, of Cincinnati, expressed his appreciation of the invention of the instrument, but could not agree that the modus operandi is a good one at all times.

DR. H. W. WILLIAMS, of Boston, remarked that the removal of a dislocated lens is not difficult. When such cases present themselves, he usually dilates the pupil *ad maximum*, places the patient on his face, and allows the lens to gravitate into the anterior chamber. It can then be removed by a simple operation.

DR. ROOSA, of New York, explained (by request) his method of removal of a cataractous lens in its capsule. Forty-one cases operated upon showed two failures, which were, however, due to other causes.

DR. GEORGE C. HARLAN, of Philadelphia, then read a paper on

RAPIDLY PROGRESSIVE MYOPIA PERMANENTLY CHECKED BY SECTION OF THE EXTERNAL RECTUS.

He related the clinical history of a patient who, at the age of 16 years, wore a sph.—$\frac{1}{24}$ to render distant objects visible. Within the last year it was found that the myopia had increased, and asthenopic symptoms became very annoying. After an external tenotomy in one eye, the asthenopia was alleviated, and gymnastics of the muscles was instituted, which produced relief. Dr. Harlan remarked that the insufficiency could not have been the result of the myopia, as it was not affected by full correction; nor could spasm of the accommodation be a possible factor, as the degree of myopia was precisely the same. The asthenopia was not relieved by thorough mydriasis produced by atropia solution.

DR. HARLAN also reported

TWO CASES OF SUBCONJUNCTIVAL LUXATION OF THE LENS.

In the first case, the result of a blow with a fist, the lens was dislocated just above the cornea, in a vertical meridian. It was fixed in its position, the iris was drawn into the ruptured sclerotic, leaving the pupil irregular, and shreds in the vitreous. The eye was quiet. The lens was removed by making a horizontal cut through the tumor—at an examination three years later the eye was quiet and afforded useful vision.

The second case was a woman who received a blow from a piece of wood which she was cutting with an axe. The accident was followed by inflammation of the iris and sclera. It was decided to remove the encysted lens at once, which was done, and negative results followed.

Dr. Harlan's deductions were that in exceptional cases in which the eye remains useful after a subluxation of the lens it may be well to think twice before proceeding to operate.

DR. O. F. WADSWORTH, of Boston read a paper on *A Case of Luxation of Lens beneath Tenon's Capsule.*

DR. JOSEPH A. ANDREWS, of New York, read a carefully prepared paper on the

TREATMENT OF PURULENT CONJUNCTIVITIS.

The treatment advocated was based upon the belief that the contagious element of this disease is a variety of micrococcus. He related a case in which he had successfully inoculated the human conjunctiva with the seventh generation of a pure culture of the gonococcus. This is the first instance in which the human conjunctiva has been successfully inoculated with the gonococcus. He showed an instrument which he had devised for washing out the superior conjunctival cul-de-sac. The instrument consists of an eye-speculum with hollow arm, the claw having numerous perforations through which

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fluid is forced by means of a fountain syringe connected with the instrument by means of a fine rubber tube five feet long. He found the bichloride of mercury in solution (1 : 10,000) serviceable, but apt to irritate; also the boracic acid solution (6 per cent.); carbolic acid solution 2 to 3 per cent. was a favorite, the latter remedy having the additional advantage that it inhibits the movement of the white blood-cells. Irrigation should be maintained for ten to fifteen minutes. The nitrate of silver, Dr. Andrews thinks, is a very valuable and almost indispensable addition. After the application of the silver he applies an antiseptic dressing to the conjunctiva consisting of vaseline and boracic acid, or carbolic acid. He laid especial stress upon the importance of maintaining the irrigation of the conjunctiva by means of the instrument above referred to.

DR. F. BULLER, of Montreal read a paper on

MELANOTIC SARCOMA OF THE ORBIT,

relating the clinical history of a patient who had the growth removed successfully with no recurrence elsewhere.

DR. E. E. HOLT offered for consideration some results obtained in the compilation of

A FIRST SERIES OF 1000 CASES OF REFRACTION.

He said he was in the habit of recording all measurements connected with the prescribing of glasses. As a result he had found in 1000 cases the average pupillary distance to be 60 mm. The average of other measurements was given and the importance of the oculist determining and designating them and having the optician follow the prescription accurately, was dwelt upon.

DR. C. R. AGNEW, of New York, read an abstract of a paper entitled

SIMULATED BLINDNESS,

based on the case of a young girl who simulated blindness for some time. The ophthalmoscope revealed no lesion, her pupils were sluggish however. A sudden alarm of fire produced sudden restoration of vision.

DR. THEOBALD had seen a similar case in which the pupils were active.

DR. B. E. FRYER, of Kansas City, read a paper on

BONY (CYSTIC) TUMOR OF ORBIT CAUSED BY AN ENCLOSED FOREIGN BODY.

He said that this case of bony orbital tumor is of interest from its pathology and from its diagnostic bearing on orbital growths generally. The patient was a colored boy, six years of age, free from hereditary taint and well developed. The tumor upon examination was found to be located just above the superciliary ridge, extending outwards as far as the external angular process of the frontal bone and projecting forward at the orbital edge about an inch higher than the bone on the other side. The tumor included the whole line of the ridge and extended downwards and backwards into the orbit, displacing the eye downwards, forwards, and outwards very markedly. The growth which was quite solid was too hard apparently for cartilage, and yet not dense enough for bone. The only history obtainable was that the boy two years previously had his forehead cut by a piece of wood thrust at him by another boy. The wound was slight, healed rapidly, and at time of examination showed no scar. The tumor began to appear after the injury and had been growing steadily since. No pain. An operation was performed May 1, 1885; a dense tumor, continuous with the frontal bone, of a whitish-yellow color and quite opaque, was found. This tumor proved to be a bony cyst enclosing a foreign body (piece of wood), one-fourth of an inch long, one-eighth of an inch broad, and one-twenty-fifth of an inch thick, with a small quantity of pus surrounding it. The tumor was successfully removed.

DR. MITTENDORF suggested that the wound injured the periosteum which, being displaced, formed the bony wall surrounding the foreign body.

DR. HARLAN called attention to the fact that inflammatory products may simulate a tumor of the orbit, and cited a case.

AFTERNOON SESSION.

DR. S. D. RISLEY, of Philadelphia, reported a group of seven cases, in addition to those already published by him, of

HYPERMETROPIC PASSING OVER INTO MYOPIC REFRACTION,

both conditions having been carefully determined after prolonged mydriasis. In five cases the meridian of lowest corneal curvature had been maintained. In two there had been a rotation of 10° in the principal meridians. Choroiditis was present in all the cases.

DR. RISLEY also reported a case of *Temporal Coloboma of the Choroid*, illustrated by a drawing.

DR. W. S. DENNETT read a paper on *The Examination of Spectacles*. This paper was illustrated with numerous drawings. He also exhibited the electric light ophthalmoscope. The light was about three-quarter candle power and was adjusted to the handle of the ophthalmoscope, the light being placed at such an angle as to allow its rays to be projected into the eye of the patient, giving an illumination not unlike the Argand burner. Its practical application is appreciated in the wards of a hospital.

DR. HOWE exhibited

AN ARRANGEMENT FOR THE DEMONSTRATION OF REFRACTION AND ACCOMMODATION.

This consists of two bands of thin metal, bent in such a manner as to represent the outlines of a double convex lens, and passing through it are two jointed rods, representing the rays of light ordinarily figured as passing through such a lens and joining at its focus; the flexible bands were attached to each other above and below, so that by approaching or separating the sides, they could be made to show less or greater convexity. The rods representing the rays of light were jointed near the centre in such a manner that, while the two halves could be placed in such a direction as to show the light as entering parallel to the axis of the lens, the other two portions could be bent to a point to show the convergence of rays at the focus. By alteration in the position of these rods, and also in the forms of the bands representing the lens, all the different variations of the laws of refraction, and the changes in accommodation, can be demonstrated to a class of students.

DR. BULL read a paper on *Two Cases of Lateral Hemiopia*, both the result of traumatism.

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DR. HASKET DERBY, of Boston, reported

TWO CASES OF PENETRATION OF THE EYEBALL BY SCISSORS DURING THE OPERATION FOR STRABISMUS.

Case I.—A sharp-pointed scissors used which penetrated the globe, causing a slight loss of vitreous; wound healed slowly; patient was convalescent in six weeks; $\frac{7}{10}$ vision was ultimately obtained.

Case II.—A similar accident happening. A good recovery, with no defect of vision.

DR. H. KNAPP stated that he had met with three accidents of this kind. The functions of the eyes were not interfered with, the wounds healing by first intention. One case developed tenonitis, the cornea becoming complicated; divergent strabismus developed.

Drs. Williams, Mittendorf, and Buller each witnessed this accident.

DR. L. WEBSTER FOX, of Philadelphia, witnessed an operation for strabismus in which the sclera was punctured, a large quantity of vitreous escaping, producing prolapsus bulbi. Panophthalmitis developed, for which the eyeball was enucleated.

DR. E. E. HOLT, of Portland, Me., read a paper on

STRABISMUS; ITS CORRECTION WHEN EXCESSIVE, AND IN HIGH DEGREES OF AMBLYOPIA.

He had employed advancement of the weakened attenuated muscle, in connection with tenotomy, in certain cases of squint, after tenotomy alone had failed to correct the deviation.

DR. SEELY, of Cincinnati, in a paper on

THE TREATMENT OF STRABISMUS INTERNUS,

said that each year, with its added experience, had strengthened the conviction that early operations (up to 10th, 12th, or 15th year) are questionable, and possibly should be entirely abandoned. He combated the idea that "cross eyes" never became straight without an operation. He said, certainly nothing is better established than the relation between ametropia and strabismus, and all recognize the necessity of glasses for preventing the recurrence of the squint after tenotomy. Dr. Seely remarked: It must be strange if any man who has been in practice, even a decade of years, and has not seen divergence in cases said to have been perfect corrections of the internal squint for even a long period subsequent to the tenotomy; at any rate, if not divergence, insufficiency. Every one knows the possibility of correcting cases of squint by setting aside the ametropia by means of glasses. He did not believe many children now of four to six years of age were operated upon, in spite of all the teaching.

His early conviction, that something should be left for time and glasses, long since has grown into an absolute law of action, for he is thoroughly persuaded that immediate perfection means later in life insufficiency, or even divergence. He thinks that operative interference should not be the full consideration, but be looked on as an adjuvant to be resorted to later on if necessary.

He summed up his views as follows:

1st. That with our present light, routine operative interference is wrong.

2d. That to correct thoroughly the deviation in young children by operative interference is extremely liable to subject them in after-life to insufficiency or external squint.

3d. That a later period of life, if anything, favors better results from operative interference.

DR. RICHARD H. DERBY, of New York, read a paper on

ECTROPION OF UPPER AND LOWER LID, BLEPHAROPLASTY BY THE ITALIAN METHOD,

based upon a case in which, in consequence of a severe burn in childhood, there was complete ectropion of the lower lid, the upper lid was everted and its margin firmly adherent to the region of the brow; the eyelashes and eye-brow intermingled. The eye from constant exposure was the seat of frequent inflammation. About the eye and over the entire half of face, including the right half of forehead and temple was dense, firm, cicatricial tissue. For the relief of this condition there was no tissue which could serve for sliding flaps, and the tissue adjacent to the eye was so devitalized that a Wolfe's operation offered little prospect of success from the nature of the tissue which would surround the transported flaps. It was, therefore, determined by Dr. Derby to make a blepharoplastic operation according to what is known as the Italian method. The patient was a strong man and assented to the proposed operation which was done under ether. An incision was made along the margin of both upper and lower lid within one mm. of their edges. The incision was carried deeply enough to free both the upper and lower lids from their firm attachment. The margins of the lids were scored with the knife and then united by sutures. To fill this space now made over both upper and lower lid a flap four ctm. wide and eight ctm. long was dissected from the anterior and inner surface of the biceps region of the arm on the same side with the operated eye. This flap was divided by a linear incision in its length leaving two-thirds for the upper and one-third for the lower lid. The arm was now carried up to the head and put in position with the forearm extended over the head and there secured by bandage. The flaps were secured in place. The arm was then made fast by water glass bandage. Four days later the pedicle of the flap was cut through and the arm released. No accident followed. The patient has now a good upper and lower lid and fully-protected eye.

DR. W. F. NORRIS, exhibited for DR. CHARLES A. OLIVER, of Philadelphia, *A New Series of Metric Test Letters* based upon those of Snellen and De Wecker.

DR. B. JOY JEFFRIES suggested, in his article on

PLASTIC OPERATIONS WITHOUT PEDICLE,

the employment of the prepuce from circumcised children for the flaps. Also the possibility in some cases of not using flaps, and by the application of carbolized oil or a similar agent preventing the too-rapid healing of the wound.

EVENING SESSION.

DR. JAMES L. MINOR, of New York, read a paper on

REMOVAL OF A PIECE OF STEEL FROM THE CRYSTALLINE LENS WITH THE ELECTRO-MAGNET.

A small bit of steel which had been in the lens for a month was successfully removed with the aid of an

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electro-magnet. The peculiarity of the operation consisted in magnetizing the instrument (strabismus hook), which was carried into the interior of the eye in search of the foreign body, by holding the point of the electro-magnet in contact with the shank of the instrument, throughout the operation. The point of the magnet holds the instrument firmly in contact with its tip which acting as a fulcrum allows a variety of movements and considerable delicacy of manipulation. This device, Dr. Minor says, enables the surgeon to operate with magnetized instruments. Reference was also made to an antiseptic method of dressing the eye which consisted in dusting powdered boric acid over the linen pad which covered the eye, previously to applying the cotton-wool packing for the bandage. The conjunctival secretions dissolve the acid and thus keep the eye under the constant influence of the drug.

DR. H. KNAPP, of New York, gave his experience, in a short paper, on

NINE SUCCESSIVE CASES IN WHICH THE ELECTRO-MAGNET WAS USED FOR THE EXTRACTION OF CHIPS OF IRON FROM THE INTERIOR OF THE EYE.

The cases were operated on during the last three and a half years. In two, the chip of iron was located in the iris; the one for two days, causing inflammation; the other for seventeen years. Quite recently both were successfully removed without any deterioration of the eye. In the seven remaining cases the foreign bodies were in the vitreous chamber, had produced cataract, and consequently could not be seen. In three cases the attempt at extracting them with the magnet did not succeed, and the eyeballs were enucleated. In four cases the chips of iron were brought forth at the first, second, or third introduction of the tip of the electro-magnet. In all of these four cases the recovery was good. All four are still cataractous; in two the form, size, and tension of the globe are not changed, and perception of light is good in the whole field; in the two others the globe is slightly smaller and softer, and the field of vision is defective, corresponding to the wound made for the extraction of the foreign body. No subsequent irritation developed while the patients were under Dr. Knapp's care.

DR. R. H. DERBY read notes and showed photographs of a case of *Congenital Malformation of the Upper Lid of an Infant*, with a history of an injury to the mother during pregnancy.

DR. A. MATHEWSON, of Brooklyn, read a paper on a

CASE OF EPITHELIOMA OF EYELID REMOVED BY APPLICATIONS OF BENZOLE AND CALOMEL.

The patient, aged 50 years, suffered with a tumor on the right lower lid, which was first noticed as a wart-like growth three years before, latterly rapidly increasing and presenting a new granulating surface covered with an easily removable concretion. Careful microscopic examination by an expert showed it to be an epithelioma. By frequent dusting of calomel on the raw surface, over which had previously been painted the common benzole, the growth entirely disappeared. A few months ago, a small granular elevation made its appearance at the edge of the cicatrix, where the first growth developed. Similar treatment produced like results.

DR. LUCIEN HOWE, of Buffalo, exhibited a manometer, and read a paper on

THE PULSATING VARIATIONS OF INTRAOCULAR TENSION AS MEASURED BY THE MANOMETER.

In calling attention to the variations of intraocular tension dependent upon the circulation, some attention also was given to the various forms of the manometer, or instrument for measuring the intraocular tension. The earlier instruments consisted simply in a U-shaped glass tube connected by a flexible rubber tube to a trocar. When the trocar was introduced into the anterior chamber of the eye, the intraocular pressure would tend to force the fluid through the tube, and show the degree of pressure by a rise in the opposite column of the U-shaped tube. This was imperfect, for the reason that when the aqueous humor escaped from the eye it was at once in an abnormal condition. The double manometer, described by Grasser and Holzke, obviated this difficulty. In this, however, there was an imperfection in the trocar, which was rather complicated and liable to get out of order. An improvement was accordingly suggested in having a stopcock attached to a needle of the hypodermic syringe, and this Dr. Howe found to serve the purpose much better than any heretofore used. The animal best adapted to this class of experiments is the cat, on account of the deep anterior chamber.

Dr. Howe stated that in the early experiments with the manometer it was noticed that the intraocular tension varied with the heart's action. In addition to this, the author called attention to the fact that these variations in the pressure, as indicated by the manometer, correspond to pulsations which can be seen with the ophthalmoscope in the vessels on the interior of the animal's eye. In other words, if the same thing holds in the human subject, we must infer that when pulsation is seen on the interior of the eye, there is also a variation of intraocular tension, which, although not enough to be detected by the touch or by any ordinary instrument, still exists. This connection between pulsation and pressure is a demonstration of the cause of venous pulse in the eye, as explained theoretically by Donders. Dr. Howe observed that after the introduction of the needle there was at first pulsation, but after a short time this ceased, the eye evidently adjusting itself to this unusual condition.

The experiments referred to were made by Dr. Howe in the laboratory of Prof. Zuntz, of Berlin, Germany.

DR. SAMUEL THEOBALD, of Baltimore, reported

THREE CASES OF PROGRESSIVE ASTIGMATISM OF TRAUMATIC ORIGIN.

Astigmatism of traumatic origin, he remarked, is observed not infrequently to undergo changes in degree, but it has been commonly held that congenital astigmatism does not alter in degree, though the refraction of the eye, as a whole, may undergo marked changes The cases which he reported, he thought, proved that there were some exceptions, at least, to this rule.

The first case related was that of a young man, who, with a high grade of hypermetropia, had an astigmatism in each eye, which required for its correction a cyl.$+\frac{1}{20}$. The case was observed at intervals during a period of twelve years, and during this time the astigmatism

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increased until finally a cyl. $+\frac{1}{18}$ was needed to correct it.

The second case was one of compound myopic astigmatism in a young man, in which there occurred along with an increase of the myopia, a growth of the astigmatism during a period of sixteen years from $\frac{1}{16}$ to $\frac{1}{8}$.

In the third case, a simple myopic astigmatism, in a physician, 25 years of age, requiring a cyl. $+\frac{1}{24}$ in one eye, and a cyl. $+\frac{1}{30}$ in the other, for its correction; changed in five years so that a cyl. $+\frac{1}{18}$ respectively, were needed.

Dr. Theobald regretted that the examinations had not all been conducted under a mydriatic, as they would then be more likely to carry conviction to the minds of those disposed to be sceptical, regarding the progression of astigmatism, but he did not believe the results would have been materially different had this been done. Such cases are not of frequent occurrence, but even if they happen rarely, it is important that the fact should be recognized. As the increase of astigmatism is probably due to change in the corneal curvature, the phenomenon should be met with more frequently in the yielding myopic than in the relatively stable hypermetropic eye.

DR. H. S. SCHELL, of Philadelphia, read a paper on

LIPOMATOUS PTOSIS,

under which title he described cases of accumulation of fat in the upper eyelid. Four cases, all occurred in young women of 18 to 25 years of age. The patients were well nourished but not fat. The eyelids were so heavy that they covered one-half or more of the cornea in spite of the greatest effort of the levator muscle.

Patients all sought relief on account of the deformity. The fat, drooping lids gave a disagreeable, and, at the same time, a somewhat sinister and sensual expression to the face. Cases were all operated on by making a horizontal incision the length of the lid, half way between the margin and brow, and dissecting out the fat, which lies between the skin and the orbicularis. The ptosis usually disappeared in from one to four weeks. In one case the affection returned, and in the second operation a considerable mass of fat was removed from the upper part of the orbit.

DR. H. KNAPP, of New York, read a paper on

THE TREATMENT OF CORNEAL INFILTRATION WITH THE ACTUAL CAUTERY.

The use of the actual cautery, he remarked, in destructive corneal processes, was introduced by Dr. Martinache, of San Francisco, in 1873; by the introduction of cocaine it has received a new impetus. Recent publications on the subject by Drs. Nieden, Schweigger, Grüning, and others, recommend its use. Dr. Knapp has used it, under cocaine, in nineteen cases. The majority were cases of pustular keratitis; one with hypopyon was that tedious form known under the name of scrofulous band. The recovery in this group of cases was rapid and highly satisfactory. Four cases of ulcus serpens, one deep with a high degree of hypopyon were treated. The latter was cured in five weeks, the others were benefited, though their recovery was not so rapid. In a case of acute suppuration of an old prolapse of iris, a single cautious application of the actual cautery did not prevent the development of panophthalmitis so common in such cases. In two cases of beginning suppuration of the edges of a cataract extraction wound, the application of the actual cautery, proposed by Abadie, had no apparent effect, the milder case recovered, the severer one developed into panophthalmitis.

Dr. Knapp, from the study of the incidental literature and from his own, though yet limited, experience, feels confident that the actual cautery will prove of great value in ophthalmic therapeutics.

DRS. E. WILLIAMS and O. F. WADSWORTH obtained good results by applying carbolic acid (pure) to the ulcers.

Several members stated that they scraped away the destructive tissue and in this way brought about resolution.

DR. L. WEBSTER FOX, of Philadelphia, presented some

CLINICAL OBSERVATIONS.

First. Congenital cataracts successfully removed in a patient sixty years of age. On February 4, 1884, Harriet H——, negress, presented herself at the Eye Clinic of the Germantown Hospital, suffering with cataracts. The lenses were opaque with well-marked deposits of calcareous concretions situated in the anterior or visible portions of the lenses.

Upon examination good projection of light obtained. The history elicited was that since birth the vision had not changed, simply being able to distinguish day from night or the light of a lamp, or the shadow of a dark object when brought directly in front of the patient's face. Feeling assured of the sensibility of the retina, an operation for the cataract in one eye was suggested, and was performed. The lens was successfully removed in its capsule with a Critchett's spoon. There was a small loss of vitreous, which was fluid. The eye was closed immediately, and the wound healed without reaction; the eye being bathed daily with a mild astringent lotion, but the lid was not disturbed.

At the end of eight days the bandages were removed when it was found that the wound was closed and a key-hole iridotomy existed which was perfect in outline and showed a clear media. The patient was astonished, she could see objects several feet distant but was quite at a loss to understand the visual phenomena. She was quite nervous from the effect of the shock and started violently and closed her eyes as if with fear. She was unable to name any object placed before her but readily distinguished it when her hand was placed upon it. A few moments afterward she readily distinguished a watch which was shown her. This was distinguished not by its form, but by its ticking. At this time wools of different colors were placed before her and a certain one given to be matched, which was done without confusion, proving the accurate sensibility of the retina to the most delicate tints, although not a name was known to the patient. After several days the object and wool test was made again. When looking at a distance—for she could recognize objects at a distance, the refraction of the eye before the operation being myopic to eleven dioptrics—she tried to grasp the objects, and a flock of sparrows were supposed to be tea-cups. Owing to her first impression of distances she was for quite a time afraid to walk with her eyes open, the floor appear-

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ing at a distance. A red and black color produced pain in the eye-ball while green and white were soothing. After the bandages were removed she was allowed the freedom of a moderately lighted room to become accustomed to those objects about her, as well as to learn to measure distances; she repeatedly refused to walk, although the nurse assured her that no danger would befall her in the effort.

The patient was soon able to associate the name with the object and at the end of some weeks, in the meantime using her eye constantly, she was able to mention all the objects in the ward of the hospital, but at times would make mistakes quite as ludicrous as the birds with the tea-cups. Her vision without glasses is equivalent to $\frac{20}{XX}$ and with sph. +1 she is able to see fine stitches which would be equal to J $\frac{2}{10''}$. In January of this year the right eye was operated on; no reaction followed, and she is now able to see perfectly with both eyes.

Her color fields were accurately measured at different times and found to correspond to Landolt's measurements. The fundus oculi presents a peculiar picture. The disks are oval in shape, while the distribution of vessels are few in number and do not extend beyond the equator—they run into capillaries and were not recognizable with the ophthalmoscope. The lenses were found to be only two-thirds the size of an ordinary adult lens. Instead of being convex in shape, they were found to be almost spheroidal. The patient is now employed as a general servant in the hospital.

Obs. II.—Recovery of vision after eighteen years of blindness. Vision after operation $\frac{5}{CC}$ increased by a glass = sph. + $10\underline{D} \supset$ cyl. + 3, D ax. 180 $\supset$ cyl. + $2\underline{D}$ ax. 50° (ground in one) = $\frac{20}{XX}$. Reading sph. + $14\underline{D} \supset$ cyl. + 1.50 ax. 50° J$\frac{1}{10}$

R. L., woman, 37 years, at three years of age was injured in the left eye, two years subsequently sympathetic ophthalmia developed, leaving the right eye with qualitative perception of light only. At various times she had operations performed by distinguished surgeons with negative results.

On June 21, 1884, at the Germantown Hospital, an iridotomy was performed; a large ovoidal-shaped pupil with a clear media was the result of this operation.

This patient, who had at one time good vision, was annoyed at the "confused look" of surrounding objects. The erythropsia (seeing everything red) was so great that dark glasses were ordered to be constantly worn. After three months this retinal trouble disappeared, and objects assumed a natural color.

After repeated examination the formula above referred to was prescribed, the glasses giving almost perfect vision. The patient (educated at a blind asylum) has presented me with her first impressions, in writing, of the living and inanimate objects surrounding her, and her mental conception of objects conveyed through the medium of touch, was as unlike that received through the now restored organ of vision as day from night.

Dr. Fox then related the history and treatment of five cases of retinitis pigmentosa.

These cases were treated by electricity (constant current five cells), and showed marked improvement in fields of vision and central vision. One patient after non-treatment for nine months (purposely) still retains the fields gained by the treatment. Dr. Fox found five cells sufficiently powerful to produce good results. The positive pole is placed over the eye, lid closed, and negative on the nape of the neck.

Obs. III.—The clinical histories of two cases of monocular optic neuritis, in which the histories are irrelevant, but good acuity of vision was obtained by small and continued doses of mercury. Both cases were young girls about sixteen years of age.

Obs. IV.—Sarcoma of iris successfully removed and $\frac{20}{XXX}$ given by cyl. + 3.50 ax. 45 $\supset$ cyl. — 4 ax. 165°. The growth was noticed as far back as July, 1884. After this time glaucomatous symptoms became manifest. Iridescent colors and increased tension were observed. The vision at one of these subacute attacks became nearly indistinct. After an interval of two months patient had another attack, the eye becoming blind and remaining so for six hours. The acuity of vision in the interval constantly growing worse, and the tension becoming more manifest at the time of the operation, February 11, 1885,

V. R. E. $\frac{20}{LXX?}$ no improvement c glasses (sarcoma).

V. L. E. $\frac{2}{C}$ injured one.

The wound was made precisely like the old flap operation for cataract. With an iris forceps the tumor and a large piece of the iris were seized, which were then excised; good results followed. The choroid of the left eye was ruptured by a blow in 1872, which accounts for the low degree of vision.

THURSDAY, JULY 16TH.—SECOND DAY.

MORNING SESSION.

DR. W. F. MITTENDORF, of New York, read a paper on

PNEUMOPHTHALMOS, OR AIR IN THE VITREOUS HUMOR.

He remarked that the entrance of air into the interior of the eye will occur at times during an operation. In such cases the air may get into the anterior chamber, whence it can be removed with ease. It is entirely different when air gets into the vitreous chamber. The accident is of such rare occurrence, that, so far, no description of it has been given. Dr. Mittendorf reported two cases. The first case was that of young blacksmith, who was wounded by a piece of iron penetrating the sclera and lodging in the vitreous humor. After a few hours it was found that the foreign body, surrounded by a clot of blood, had settled at the bottom of the eye, the vitreous had cleared up, and behind the lens, and a little above it, three air-bubbles were seen by means of the ophthalmoscope, one of these appeared to be the size of a small pea, the two smaller ones were about as large as a rape-seed. They resembled the air-bubbles as seen under the microscope, their centre being bright, and the outline so well defined and surrounded by a sharp black border, that their recognition

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was not difficult, although none of the gentlemen that looked at the case had ever seen anything like it in the interior of the eye.

The foreign body could not be removed by means of the magnet, and it was decided to let it remain. The eye was bandaged, and at an examination the following morning it was found that the bubbles had coalesced, and a large bubble was now located at the posterior pole of the lens, the patient having remained quietly on his back sometime before examination. The upright position caused the bubble to float upwards, and settle at the dome of the eye. Forty-eight hours after the accident every trace of the air-bubbles had disappeared.

The second case was the result of a drilling accident, and represented in outline the same characteristics.

In order to determine the exact appearance of air in the vitreous humor, Dr. Mittendorf experimented upon rabbits' eyes. Four had air introduced into the vitreous humor by means of a hypodermic syringe, while four were subjected to introduction of oil by the same means. Nearly all these experiments were successful. The difference between the air-bubbles and oil-globules was marked. The oil-globules were highly refractive, the contour decidedly darker than the air-bubbles, which were colorless. Dr. Mittendorf's conclusions were:

1. The entrance of air into the vitreous body can occur only after a part of the contents of the vitreous chamber has escaped.

2. It is favored by the entrance of a foreign body which makes a large, irregular, and gaping wound in the sclera.

3. In order to allow air to enter the vitreous humor, this must either be quite fluid, or its anatomical arrangement must have been disturbed by the entrance of a foreign body, or the air must have been attached to the foreign body, and thus carried with it into the eye.

4. The air in the vitreous humor appears like an air-bubble as seen under the microscope; it is more or less round, highly refractive in the centre, and has a sharply defined black outline.

5. Oil-globules in the vitreous present a similar appearance, but they look heavier, and are not perfectly colorless, and their outlines are darker; they are also more glistening in the centre.

6. Air-bubbles will be completely absorbed within two or three days; their presence is not a source of great danger to the eye. Oil-globules last longer, but their presence is likewise non-irritating.

DR. W. F. NORRIS, of Philadelphia, read a carefully prepared paper on

THE RELATION BETWEEN THE EARLIER STAGES OF GRAY DEGENERATION OF THE OPTIC NERVE AND INCREASE OR DIMINUTION OF THE PATELLAR TENDON REFLEX.

The clinical histories of the patients were discussed, and their fields of vision shown.

DR. E. WILLIAMS remarked that he had had patients in whom he failed to trace the atrophy to spinal trouble. He felt sure that taking large and repeated doses of quinia would produce amaurosis.

DR. MYLES STANDISH, of Boston, read a paper on

A CASE OF TUBERCLE OF THE IRIS.

The patient, a girl of 14 years, her parents living, and without any history of syphilitic or tubercular disease, was, however, anæmic, and poorly developed. A growth, 2 mm. in diameter, of pink color, with small vessels on its surface, projected from the surface of the iris near its ciliary border. There was posterior synechiæ, which were not broken by mydriatics. In one month the growth had doubled in size, the iris remaining perfectly quiet. The eye was removed at the Massachusetts General Hospital, and a microscopic examination of the tumor was made by an expert, who pronounced it tubercle of the iris.

DR. G. C. HARLAN exhibited for Dr. Jackson, of Philadelphia,

A NEW REFRACTION OPHTHALMOSCOPE.

The main features of this instrument is the absence of Rekoss's disk, the lenses are placed in two narrow slides, which move vertically behind the mirror and in front of the disk, thus obtaining a range from sph. + 9 D to sph. — 14 D inclusive, with an interval of 1 D.

DR. W. S. DENNETT, of New York, showed

THE STOKES LENS FOR MEASURING ASTIGMATISM.

These lenses were supported by a frame in such a way as to be easily adjusted in the place of the ordinary trial frame, and he gave in detail the simplest method of fitting glasses by it. Dr. Dennett showed that the instrument was so easily manipulated that the patient could assist greatly in the examination. The strength of cylinder and inclination of its axis could be read from the instrument, and the method of correction for the spherical element which entered into the Stokes combinations, was so simple that any one who would write it on a tag and attach it to the machine, would probably never need to refresh his memory by looking at the tag.

DR. C. J. KIPP, of Newark, N. J., reported

A CASE OF CONGENITAL COLOBOMA OF IRIS, CHOROID, AND RETINA,

in which inflammatory glaucoma developed late in life; with an anatomical description of the eye. The eye was enucleated to relieve pain. The coloboma was found to extend through to the optic nerve. The ciliary bodies were intact, but irregular as to the arrangement of their processes. There was a large ectasia of the sclerotic, over this the choroid and retina were wanting. There was a deep glaucomatous excavation of the optic nerve.

DR. O. F. WADSWORTH, of Boston, reported an interesting

CASE OF DOUBLE OPTIC NEURITIS AND OPHTHALMOPLEGIA FROM LEAD POISONING,

complicated with typhoid fever. He remarked that the patient, a boy 9 years of age, had suffered with obscure febrile symptoms for several weeks, and movements of the left eye had been observed to be imperfect. When first seen by Dr. Wadsworth there was pronounced optic neuritis in both eyes, vision was much diminished. No lateral movements of left eye, movement downward impaired; movement of right eye outward defective. Probable diagnosis, tumor in region of pons.

The movements of the eyes became still more impaired and vision sank. The patient developed fairly distinct symptoms of typhoid; spleen and liver both enlarged. Lead was found in the urine, and diagnosis of tumor abandoned. Treated with potass. iod., general

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conditions became normal; the neuritis passed into atrophy, leaving too little vision to count fingers; the movements of the eyes were completely restored; the lead disappeared from the urine.

DR. B. JOY JEFFRIES, of Boston, offered the following resolution concerning

STANDARD COLOR SIGNALS,

which was unanimously adopted:

Resolved, That the Society would again express most hearty approval of the International Commission, twice recommended in a bill reported by the Naval Committee of Congress, and endorsed by the International Medical Congress of London, 1881; to consider and agree upon standard colored lights and signals, etc.; and the visual power and color sense of officers and sailors.

The Society would particularly support the International Congress, and vote that "every government, especially the maritime governments, should be requested to place one or more members on the commission, and chiefly experienced naval officers and medical specialists.

The Secretary is hereby directed to transmit this vote to Congress.

DR. SAMUEL THEOBALD, of Baltimore, offered the following resolution concerning the

NEW ORGANIZATION OF THE INTERNATIONAL CONGRESS.

Resolved, That it is the sense of the American Ophthalmological Society, that the action of the American Medical Association, at its late meeting in New Orleans, and of the enlarged committee appointed at that time to make arrangements for the International Medical Congress, in overturning much of the carefully planned work of the original committee appointed at Washington, for the same purpose, was unwise, and not to be defended, unless, possibly, upon technical grounds; and this Society hopes that none of its members will endorse the action of the enlarged committee by accepting official positions at its hands.

DR. E. WILLIAMS, of Cincinnati, voted against the measure, on account "of not wishing to goad a sick horse." He understood that he was appointed by the new committee president of the Ophthalmological Section, but up to the present time he had not been notified, and hence had not yet tendered his resignation.

DR. KIPP spoke against the resolution.

The resolution was adopted by a large majority.

The meeting was highly satisfactory to the members present, a larger number participating, and a larger number of papers were read than at any previous meeting. It was decided to hold the Twenty-second Annual Meeting at the same place in July, 1886.

NEWS ITEMS.

CINCINNATI.

(*From our Special Correspondent.*)

THE INTERNATIONAL MEDICAL CONGRESS AND THE MEDICAL PROFESSION OF CINCINNATI.—The members of the profession in Cincinnati and its vicinity who were appointed to office by the Chicago Committee, on July 17th adopted the following preamble and resolution:

Whereas, The recent action of the American Medical Association with reference to the organization of the proposed International Medical Congress was, we believe, detrimental to the best interests of the Congress, therefore,

Resolved, That we, the undersigned, nominated members of the Congress, hereby decline to serve.

P. S. Conner,	J. C. Reeve,
F. Forchheimer,	W. W. Seely,
S. Nickles,	J. T. Whittaker,
Thad. A. Reamy,	E. Williams.

MORE RESIGNATIONS FROM THE NEW ORGANIZATION.—We are informed that Dr. W. A. Hardaway, of St. Louis, has declined the Presidency, and Dr. J. Nevins Hyde, of Chicago, the Vice-Presidency, of the Section of Dermatology and Syphilis in the new organization of the Congress; that Dr. E. Williams, of Cincinnati, declines the Presidency of the Section of Ophthalmology; and that Drs. T. A. Reamy, of Cincinnati, and J. C. Reeve, of Dayton, Ohio, have declined Vice-Presidencies in the Section of Obstetrics and Gynecology.

Drs. George M. Sternberg and R. W. Shufeldt, U. S. A., E. Van de Warker, of Syracuse, N. Y., and William Lee, of Washington, J. M. Keating and George E. De Schweinitz, of Philadelphia, have also declared their intention to decline office.

Dr. N. Senn, of Milwaukee, has resigned from the General Committee.

THE INTERNATIONAL MEDICAL CONGRESS AND THE AMERICAN OPHTHALMOLOGICAL SOCIETY. — At the annual meeting of the American Ophthalmological Society held at New London last week, the following resolution was adopted.

Resolved, That it is the sense of the American Ophthalmological Society that the action of the American Medical Association at its late meeting in New Orleans, and of the enlarged Committee appointed at that time to make arrangements for the International Medical Congress in overturning much of the carefully planned work of the Original Committee appointed at Washington for the same purpose, was unwise and not to be defended, unless, possibly, upon technical grounds; and this Society hopes that none of its members will endorse the action of the enlarged Committee by accepting official positions at its hands.

PUBLIC OPINION ON THE WORK OF THE CHICAGO COMMITTEE.—The exclusion from representation in the Congress of the great bulk of the profession, including a large number of the brightest lights of American medicine, seems, not to put it too harshly, like a piece of unwarrantable assumption.

The effect of this action of the Committee remains, of course, to be seen, and can only be conjectured. That it has not met the approval of even all of the appointees of the Committee has already transpired. . . . . Perhaps and doubtless, the thirty-eight States and territories of this Union will be able to get along without the gentlemen whom the Committee have excluded, and who have excluded themselves; but can a meeting with such material left out be said to be thoroughly representative of the medical profession of the United States? The

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action of the European profession in the premises, remains to be seen.—*Medical Age* (Detroit).

The past week has brought no news calculated to reassure those who are anxious for the success of the International Medical Congress and the credit of American medicine. Nearly all the gentlemen appointed on the organization from Boston, Philadelphia, Baltimore, and Washington have withdrawn, while many prominent men in New York (aside from those forced off) and from the West will, we learn, either formally withdraw, or informally decline to take any part in the work.

The comments of the medical press are almost uniformly condemnatory of the folly and short-sightedness of the American Medical Association. . . . . A meeting of the American Medical Association, entirely revoking its New Orleans work, and restoring the old Committee, with its liberal policy, might, perhaps, save the Congress. We see, at present, no other way.—*Medical Record.*

It has unquestionably become the duty of every well-wisher of the Congress, no matter where he may live, to decline any participation in the emasculated affair, which its present organization must necessarily lead to.—*New York Medical Journal.*

The very fact that the appointees of the original Committee in all parts of the country have acted with such unanimity in withdrawing from prominent positions in connection with the Congress, and have repudiated the action of the present Committee on Organization, is sufficient evidence that there were strong and unimpeachable reasons for their conduct in this matter. . . . . The withdrawal of the leading members of the profession from all connection with the present organization tells its own story, and very plainly says, the Congress must be reorganized on some other basis than the one proposed by the American Medical Association if it is to be a success. In other words, the Association has so seriously blundered in this affair that it must resign its authority as a leading spirit in the reorganization of the Congress. Indeed, it seems to us that the only course now left open to the Association is to abstain from further participation in the arrangements for the Congress, and that it leave this matter in the hands of the medical profession at large, which can be depended on to reorganize the Congress on a successful basis.—*Maryland Medical Journal*, July 18, 1885.

The spirit of dissatisfaction has not been quieted, and the outlook for a harmonious reception of our foreign brethren is decidedly dark.—*Northwestern Lancet*, St. Paul.

No sooner were the proceedings of the Chicago meeting made known than the members of the profession in the eastern cities interested in the organization met and expressed their emphatic disapproval of the action by unanimously refusing to have anything to do with the Congress under the present *regime*. We happened to be in Philadelphia on the occasion of the meeting in that city, and found that the leaders of the profession were of one mind in their determination to withdraw. Similar resolutions have been passed in Boston and Baltimore, and we may say that the majority of the men, eminent in scientific medicine and surgery in the United States, have decided to hold aloof from the Congress. When we ask why they take this serious step, we learn that they have, in the first place, a deep distrust of the American Medical Association as an organization which could satisfactorily carry out such an undertaking, and they have a still deeper distrust of the success of any congress where the best known scientific medical men of the country have been replaced by nominees such as Drs. Cole, Shoemaker, and others. All, too, resent the insult offered to such a veteran as Henry I. Bowditch, of Boston, who has devoted half a century to the advancement of the best interests of the profession in the United States.

What the result will be it is difficult to predict, but it is hard to see how a Congress can be held without such men as those who have signified their intention of resigning. It would be like a Congress in London without Paget, Lister, Jenner, Gull, Hutchinson, etc., and we fear that when the profession in Europe hears of these dissensions, and the withdrawal of the very men they would be most anxious to meet, many who otherwise would have come will elect to stay away.—*Canada Medical and Surgical Journal.*

There is a very unfortunate discussion going on at present in professional circles in America, which, it is quite possible, may turn out disastrously for the International Medical Congress, which it has been decided to hold in Washington in 1887. It will be remembered that a small Committee of the American Medical Association was nominated by the Executive of the Copenhagen Congress, with full power to add to their number, and to act on behalf of their professional brethren. Carrying out their mission, they chose as colleagues twenty-eight leading American practitioners, especially selected on account of their standing in the profession, and drew up the programme which has already been published. Subsequently, when the Committee reported to the meeting of the American Medical Association at New Orleans, exception was taken to their proceedings on the plea that they had exceeded their powers, and had no commission to act on behalf of the Association. The jealousies that had been roused amongst those who had been passed over in the coöptative selection were worked upon by two or three pushing wire-pullers, and, in the end, resolutions were passed revising the work of the Committee, and substituting a Committee of thirty-eight men, selected from the different States and territories, for those added to their number by the original Committee. At a subsequent meeting, the results of which we are daily expecting to hear, the subject was again to come under consideration, and we learn that it was the intention of all the leading practitioners in the States to withdraw from the Congress, if the decisions of the original Committee were not treated with more respect. We sincerely hope that the profession in America will strenuously support their recognized leaders; otherwise they will make an exhibition of themselves to the world, and, besides imperilling the future success of those international gatherings which have hitherto been conducted with so much harmony, will distinctly lower the respect in which the profession is held throughout the world.—*Medical Times and Gazette* (London).

IMPORTANT, IF TRUE.—The *Maryland Medical Journal*, in its issue of last Saturday, states that "it is currently rumored in this city that the International Medical Congress and the American Medical Association have been captured by one of the New York schools, and will

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be run under its exclusive patronage. 'Madam Rumor' is not always an unreliable witness."

THE MUHLENBERG MEDICAL SOCIETY, of Tennessee, was organized in Central City on Wednesday, July 9, 1885. Dr. J. G. Bohannon was elected President; Dr. W. E. Irvin, First Vice-President; Dr. J. T. Woodburn, Second Vice-President; Dr. J. W. McDowell, Recording Secretary.

The Society will meet the first Wednesday in each month at some town in the county. The Society will next meet at South Carrollton, August 5th, at 10 o'clock A.M. Dr. J. T. Woodburn, of Bremen, will read a paper on "Cholera Infantum."

TYROTOXICON, CHEESE POISON.—At the meeting of the Michigan State Board of Health, July 14, 1885, DR. V. C. VAUGHAN presented a report of his investigations on poisonous cheese. It is well known that cases of severe illness follow the eating of some cheese. Such instances are of frequent occurrence in the North German countries and in the United States. In England they are less frequently observed; while in France, where much cheese is made and eaten, these cases are said to occur very rarely. A few years ago the reputation of a large cheese factory in northern Ohio was destroyed by the great number of cases of alarming illness from eating its cheese. Dairymen know this cheese as "sick" cheese.

Kinds of Cheese that are Poisonous.—A German author says: "The numerous kinds of soft cheese, prepared in small families, or on small farms, are generally the cause of the symptoms; while it is quite exceptional to hear of symptoms arising from the use of cheese prepared in large quantities." Some two years ago, a family in Alpena, Michigan, was poisoned by eating of cottage cheese; the cheese which poisoned so many in this State last year, was made at one of the largest factories in the State, and by an experienced cheese-maker. The old foul-smelling cheeses, such as Limburger and Schweitzer, have never been known to be poisonous.

Effects of the Cheese.—The symptoms produced by "sick" cheese, as reported by German and American physicians, agree quite closely, and are as follows: Dryness of the mouth and throat with a sense of constriction, nausea, vomiting, diarrhœa, headache, sometimes double vision, and marked nervous prostration. In rare instances the sufferer dies from collapse. As a rule, recovery occurs in a few hours, or at most after a few days. The symptoms of cheese-poisoning and those of sausage, canned-meat and fish poisoning, are very similar. Though death results more frequently from the others mentioned than from cheese-poisoning.

Appearance of the Cheese.—The samples of cheese examined had no peculiarities of appearance, odor, or taste, by which it could be distinguished from good cheese. It is true that if two pieces of cheese—one poisonous and the other wholesome—were offered to a dog or a cat, the animal would select the good cheese. But this was probably due to an acuteness of the sense of smell possessed by the animal and not belonging to man. Indeed, if a person tasted a cheese, knowing that it was poisonous, he might detect a sharpness of taste which would not ordinarily be noticed.

Have we any Ready Means of Recognizing Poisonous Cheese?—There is no certain means, aside from a chemical examination, by which a poisonous cheese can be distinguished from a wholesome one. The most reliable ready method is probably that proposed by Dr. Vaughan a year ago, and it is as follows: Press a small strip of blue litmus paper (which can be obtained at any drug store) against a freshly-cut surface of the cheese. If the paper is reddened instantly and intensely, the cheese may be regarded with suspicion. When treated in this way, any green cheese will redden the litmus paper, but ordinarily the reddening will be produced slowly and will be slight. If the piece of cheese be dry, a small bit should be rubbed up with an equal volume of water, and the paper should then be dipped in the water. Dr. Vaughan does not regard the above test as free from error, but as the most reliable ready means now known. Every groceryman should apply this test to each fresh cheese which he cuts. The depth of the reddening of the paper may be compared with that produced by cheese which is known to be wholesome.

Effects on the Lower Animals.—Dogs and cats, at least, are not affected by eating poisonous cheese. This is probably due to the fact that they do not get enough of the poison from the amount of cheese which they eat. The pure isolated poison in sufficient doses would undoubtedly produce upon the lower animals effects similar to those produced on man.

Nature of the Poison.—Dr. Vaughan has succeeded in isolating the poison, to which he has given the name tyrotoxicon (from two Greek words which mean cheese and poison). It is a product of slight putrefaction in the cheese, which probably occurs in the vat, as the curd has been known to poison a person. By this slight putrefaction, or excessive fermentation, as it may be called, a large amount of butyric acid is formed, and this in the presence of the casein of the cheese is capable of developing a poison. Different samples of poisonous cheese contain different amounts of the poison. The same weight of cheese from one cake furnished three times as much poison as that from another cake. The poison was obtained in long, needle-shaped crystals, which are freely soluble in water, chloroform, alcohol, and ether. The smallest visible fragment of a crystal placed upon the end of the tongue causes a sharp, stinging pain at the point of application, and in a few minutes dryness and constriction of the throat. A slightly larger amount produced nausea, vomiting, and diarrhœa. The poison is volatile at the temperature of boiling water, and for this reason even poisonous cheese may be eaten with impunity after being cooked. The substance has also a marked, pungent odor, and through the nose one can obtain sufficient of the volatile poison to produce dryness of the throat. This is true, however, only of the isolated poison. In the cheese the taste and odor of the poison are both modified to such an extent that they would not be recognized, as has already been stated.

The first step in the study of cheese poisoning has now been taken, by finding out what the poison is. Efforts will be made to ascertain the means for preventing its formation.

FERRÁN'S CHOLERA INOCULATION.—The pilgrimage of Professor Brouardel and his companions to the feet of the great Western Sage, who professes to stamp out

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the most formidable of modern epidemics, has produced the most startling and unexpected results. Dr. Ferrán positively refused to make known his method of preparing the fluid, the inoculation of which, he claims, preserves from cholera. He would not allow the French Commission to carry off even a single tube of vaccine matter for the purpose of examining it under the microscope, and refused to sanction any experiment outside of his "laboratory." The place dignified with that high-sounding name possesses none of the modern appliances of science, not even an apparatus for regulating the temperature of the stove in which the cholera virus is cultivated for attenuation. The single microscope available within its precincts only possesses a magnifying power of 700 diameters, while in all modern laboratories of bacteriology magnifying powers of 1200 or 1400 diameters are considered indispensable. We must admire the genius of investigation which led Dr. Ferrán, with such imperfect means, to achieve such portentous discoveries; but we cannot laud the spirit in which he told the French Commissioners that he could not surrender his secret without "a guarantee." The meaning of this expression was clearly indicated by the Doctor himself, in a letter officially addressed to the (French) Minister of Trade, in which, after deploring the indifference of his native country, which, unlike France and Germany, grants no pecuniary reward to its men of science, he openly says, "All the fame in the world would not preserve my children from poverty if death should overtake me."

It sems fair that, before granting Dr. Ferrán a "*substantial*" reward, the Spanish Government should make sure that there exists a "*substantial*" discovery. The French Commission could not solve the problem, as the Doctor had no microscopical preparations to show them, and would not grant them permission to make any of their own. They had, therefore, no means of controlling Dr. Ferrán's startling announcements as to the mode of reproduction of the cholera bacillus, nor of making experiments upon living animals. All they could do was to attend the Doctor in some of his "*vaccinations*," and to examine the statistical data which seem to plead in favor of his system. Dr. Ferrán inoculated, in presence of the Commissioners, a certain number of Sisters of Charity. He injects the contents of a full syringe (one cubic centimetre) into the back part of each arm. No antiseptic precautions are taken, and the air contained in the syringe is not even expelled before the injection takes place. The results are a slight malaise, with lowering of the temperature; no fever, no vomiting, or diarrhœa. It must be allowed that, on the whole, no bad effects seem to follow the injection. The blood of persons inoculated contains no abnormal elements.

The statistical data, which at first sight appear to confirm Dr. Ferrán's statements, are, upon further investigation, found to be altogether unreliable. The population of Spanish towns is always understated, in order to avoid taxation; the number of deaths is also understated, especially in times of cholera, in order to avoid the much-dreaded sanitary "cordon." No reliance, therefore, can be placed upon the figures, which seem to prove that vaccinated and revaccinated subjects are less liable to infection than others. Besides, it is well-known that in all countries cholera is less frequent among the more prosperous classes of society than among the poor. Now, the poor are properly not to be reckoned among vaccinated subjects, since Dr. Ferrán's charges vary from four to ten shillings. As the Doctor is said to vaccinate from 500 to 600 persons daily, the operation would seem not to be altogether unprofitable, and the "*guarantee*" which Government refuses is evidently drawn from the public. It may, therefore, safely be concluded, as Professor Brouardel remarks, that Dr. Ferrán has far too hastily stepped out of the scientific and experimental period into the period of what he calls "*practice*." Compare with his rashness the extreme prudence of Pasteur! Yet, the French physiologist operated upon cattle, and not upon man.—*Medical Times and Gazette*, July 11, 1885.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JULY 14 TO JULY 20, 1885.

VOLLUM, E. P., *Lieutenant-Colonel and Surgeon.*—To be relieved from duty in Department of the East on the expiration of his present leave of absence, and to report to Commanding General Department of the Platte for assignment to duty as Attending Surgeon at the headquarters of that department.—*S. O. 159, A. G. O.*, July 14, 1885.

MIDDLETON, J. V. D., *Major and Surgeon.*—Leave of absence extended fifteen days.—*S. O. 159, A. G. O.*, July 14, 1885.

BROWN, J. M., *Major and Surgeon.*—EWEN, CLARENCE, *Captain and Assistant Surgeon.*—TAYLOR, A. W., *Captain and Assistant Surgeon.*—BORDEN, W. C., *First Lieutenant and Assistant Surgeon.*—Ordered to prepare for field service..—*S. O. 64, Department of the Platte*, July 9, 1885.

ELBREY, F. W., *Captain and Assistant Surgeon.*—Sick leave of absence further extended four months on surgeon's certificate of disability.—*S. O. 162, A. G. O.*, July 17, 1885.

GRAY, W. W., *Captain and Assistant Surgeon.*—Relieved from duty at Fort Barrancas, Florida, and ordered for duty at Fort Columbus, New York Harbor.—*S. O. 147, Department of the East*, July 13, 1885.

EVESTE, EDWARD, *First Lieutenant and Assistant Surgeon.*—Ordered for duty as Post Surgeon, Fort McDermit, Nevada.—*S. O. 68, Department of California*, July 11, 1885.

POLHEMUS, A. S., *First Lieutenant and Assistant Surgeon.*—Ordered for duty as Post Surgeon, Benicia Barracks, California.—*S. O. 68, Department of California*, July 11, 1885.

WINNE. C. K., *Captain and Assistant Surgeon.*—Ordered for duty at Benicia Arsenal, California.—*S. O. 68, Department of California*, July 11, 1885.

EDIE, G. L., and BLACK, C. S., *First Lieutenants and Assistant Surgeons.*—Ordered for duty with troops en route to Department of Missouri.—*S. O. 78, Department of Texas*, July 10, 1885.

OFFICIAL LIST OF CHANGES IN THE MEDICAL DEPARTMENT OF THE U. S. NAVY, DURING THE WEEK ENDING JULY 18, 1885.

OWENS, THOMAS, *Assistant Surgeon.*—Granted sick leave for one month, July 14, 1885.

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ORIGINAL LECTURES.

PLEURITIS HÆMORRHAGICA TUBERCULOSA WITH PURPURA HÆMORRHAGICA.

A Clinical Lecture, delivered at the General Hospital, Vienna.

BY PROF. HERMANN NOTHNAGEL.

(Reported by J. P. CROZER GRIFFITH, M.D., of Philadelphia.)

GENTLEMEN: The patient [who has been previously questioned before the class] complains of shortness of breath, weakness, and cough accompanied by expectoration. He says he feels tired and languid,and, as you notice, he is so very hoarse that he is almost unable to speak. We will now hear the clinical history.

"The patient is a baker, aged twenty-one years. His father died of some lung affection, but with this exception his family history is good. For several years past he has had a cough, which has been gradually getting worse, and which is accompanied by a little mucous expectoration. Five weeks ago he became very hoarse and short of breath, but he had no chill. He found, too, that he was unable to lie on his right side, and his appetite became bad. He declares that he has never spit blood."

Now we must remember that both bakers and millers are very liable to suffer from cough induced by the dust which they inhale. This may finally lead on to bronchial catarrh, and even to tuberculosis.

Proceeding to the examination of the case before us, we find the mental faculties unaffected, and that there is no headache, but we notice a high degree of pallor of the face. The gums and conjunctivæ are pale; the lips pale and cyanotic. The bony framework is of moderate strength, and the muscular system tolerably well developed. The hands and arms are pale, and on the latter we notice an eruption of acne, and, in addition to this, a number of small subdermal hemorrhages. The pulse beats 120 in the minute, is soft, moderately full, and with tension below normal. The frequency of the respiration is 46 per minute. On the legs there is no dropsy, but we observe a great number of the same small hemorrhages. The same is true of the thighs. Larger suggillations in the muscles can nowhere be found. The skin on the trunk is pale and dry, and we see that the patient has fever. His temperature this morning was 100 5° F.; the maximum it has reached at any time is 103.1° F. What then is the chief thing we notice? A high grade of pallor. Yet in spite of this we find a well-developed panniculus adiposus and muscular system.

Now, in inanition and the attending anæmia there occurs a wasting of both muscular and adipose tissue. Whenever we have extreme anæmia without emaciation, the cause must be either: 1. A direct loss of blood; or, 2. A disease of the blood.

We will now examine the respiratory apparatus, to see whether we can there find any cause for the present condition. A laryngoscopical examination has already been made, and revealed only a general redness and swelling of the mucous membrane of the larynx. The thorax is of moderate length, broad, somewhat shallow, but well developed. The respiratory movement is not alike on the two sides; on the contrary, we observe that on the left it is much greater than on the right.

Upon percussion in the *mammillary line* we find the sound in the supraclavicular fossa on the right side somewhat deeper than on the left; over the clavicle alike on both sides; in the right infraclavicular fossa again deeper and louder. In the second intercostal space, left, we get a normal tone, right, a deeper, louder, and fuller one. Now, completing the percussion in the mammillary line left, we find the sounds everywhere normal. On the right side, however, in the third intercostal space, the note is abnormally deep; over the third rib we get a dulness; and as we percuss downwards we find this continuous and increasing.

In the *axillary line* the right side exhibits a marked dulness from the axilla downwards, while the left gives a normal sound. Posteriorly, in the left suprascapular region, the sound is normal; in the right it is louder and fuller. In the interscapular region, and elsewhere over the posterior portion of the chest, the right side is everywhere duller than the left.

What have we now ascertained?

1st. That there is a dulness over the right side, beginning anteriorly at the third rib, and posteriorly at the upper part of the interscapular space.

2d. That this dulness increases in intensity as we percuss downwards.

3d. That there is an abnormally loud and deep percussion note over the upper portion of the affected side. This last is due to the increased tension of the lung, and all together indicate the existence of a pleuritic effusion.

Proceeding now with auscultation, we find everywhere on the left side puerile respiration. On the right side, as far as the second intercostal space, the respiration is weak and vesicular, but with prolonged expiration. In the third intercostal space it is bronchial, but soft, and is accompanied by fine mucous râles, and below this point it continues soft, weak, and bronchial. Thus the auscultatory signs also indicate an effusion into the pleural cavity, and there is, in fact, no doubt that this exists. But we must again consider the pallor, for we have seen together up to to-day but one other case of pleuritic effusion so pale. That was, you remember, a patient with empyema, who was, moreover, much emaciated. What is here the nature of the effusion, and what causes the pallor? We will examine the rest of the body, in the hope of finding there some cause.

The tongue trembles when it is protruded. It is damp and not coated. The heart's impulse is weak, and the apex-beat to be felt most distinctly in the fifth intercostal space in the mammary line. This shows

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that it has been displaced by the effusion somewhat towards the left. The valvular sounds are clear, and no murmurs or *bruit de diable* are to be heard in either the heart or vessels. The abdomen is soft and its percussion sounds normal. The liver is slightly displaced by the pressure of the fluid in the pleural cavity. The spleen cannot be felt, nor does percussion show it to be enlarged, and we cannot, therefore, entertain the thought of leucæmia. The urine is lessened in quantity; its specific gravity is 1026, and its color yellow. We test it and find it intensely acid. You see the sediment in it, which is composed of urates, and you see also, as I test it, that it contains no albumen, in spite of the presence of fever. The stools are normal in frequency and quality. Have we now found a cause for the pallor? Not yet; and we must look at the blood. [Examines a drop under the microscope.] The white blood-corpuscles are but slightly increased in number, and the red are altered neither in quantity nor quality. Therefore, from this source we learn nothing. There is now but one method left us, and that is to examine the effused fluid. First let us consider certain points in differential diagnosis.

When a patient with a pleuritic effusion has no fever, the fluid is, as a rule, serous. When, however, long-continued fever is present, it consists generally of either pus or blood. But we may have blood or pus in the pleural cavity, and no fever, as occurs in the case of the hemorrhagic effusion accompanying carcinoma of the pleura; and we can also have a clear serous fluid and yet fever may be present. So we see that from the temperature alone we cannot diagnosticate the nature of the fluid.

Great stress is laid by some authorities on the fact that when we find, in addition to the pleuritic effusion, evidences of carcinoma, tuberculosis, or scorbutus, the exudate is probably hemorrhagic. By some, too, the color of the skin is considered an important diagnostic sign. Namely, that when a patient with a pleuritic effusion has exhibited a rapid paling of the skin, the fluid consists of either pus or blood.

Others claim that the presence of œdema of the skin is a sign that the exudate is purulent. This œdema can occur, of course, in numerous diseases, such as abscesses, diseases of the kidneys, etc.

Two questions arise here: First, can œdema be absent in cases of purulent effusion; and, second, can œdema accompany ordinary serous effusion? And the answer to both, it must be admitted, is, "Yes, under certain conditions."

Then importance is given by some to the alteration of the voice, namely, that the presence of a hoarse, hollow voice, such as we hear in this case, indicates that the fluid is probably purulent.

Some of these different diagnostic signs are not without weight, and we conclude that when in any case of pleuritic effusion we have unmistakable evidences of carcinoma, tuberculosis, or scorbutus, a rapid paling of the surface of the body, and œdema of the skin, the exudate is probably, but not necessarily, either purulent or hemorrhagic.

We will now try the "puncture test" with the hypodermatic syringe, and settle the matter finally. You see that the fluid consists of blood; that is, we have a hemorrhagic effusion. Now we know why the patient is so pale. There is probably a large quantity of blood in the pleural cavity.

Our next question is: "Why is the exudate bloody?" A hemorrhagic pleuritic effusion can occur in an otherwise healthy person as the result of *trauma*. When no such cause exists it is usually due to either

1. Tuberculosis.
2. Carcinoma or sarcoma.
3. Diseases of the hemorrhagic diathesis, as:

(*a*) Scorbutus,
(*b*) Purpura hæmorrhagica,
(*c*) Hæmatophilia,
(*d*) Pernicious anæmia,
(*e*) Icterus.

Which is it in this case?

The patient has no signs of tuberculosis in the left lung. In the upper portion of the right lung we hear some moist crackling râles, but these are a common accompaniment of pleuritic effusion. Indeed, under the existing conditions, it is exceedingly difficult to determine whether or not tuberculosis be present. The sputum is muco-purulent, contains but little blood, and is slightly putrid. Microscopical examination has discovered no tubercle bacilli.

You notice the purple spots in the skin of the arms and legs. These slight hemorrhages are characteristic of purpura hæmorrhagica. Their nature indicates that they are not due to scorbutus, for they are not large enough, and there are, moreover, no accompanying hemorrhages into the muscles. When you have but a single isolated case, and no previous history to indicate that it is probably that disease, you cannot be justified in diagnosticating scorbutus unless you find the affection of the gums. Look at them in this case. You see none of the characteristic swelling and ulceration seen in that disorder.

The patient has no tendency to bleed from other parts of the body; therefore, hæmatophilia is out of the question, So also are icterus and pernicious anæmia. There remain to us, therefore, as possible causes of the hemorrhagic effusion, carcinoma or sarcoma of the pleura, and purpura hæmorrhagica. Sarcoma or carcinoma are probably not present. Primary carcinoma of the pleura occurs but seldom, and then, too, the patient would be emaciated as well as pale. Therefore, taking everything into consideration, we think that the patient is suffering from purpura hæmorrhagica, and that this has predisposed to the hemorrhage into the pleural cavity. The prognosis is, of course, unfavorable.

In regard to the therapeutics, Would you aspirate in this case? No; only when the effusion becomes so great that aspiration is a necessity. *Do not give iron.* You must never give iron to a patient with fever; and the same rule applies to cod-liver oil. All we can do here is to employ cold externally, and to administer nourishing food and stimulants.

POSTSCRIPT (three days later).—I have just attended the autopsy of the patient we had before us three days ago. You remember that the left lung showed no signs of disease, and that the presence of fluid in the right pleural cavity rendered it impossible to ascertain whether or not the lung of this side was affected. The sputum, moreover, contained no tubercle bacilli. We, therefore, concluded finally that the disease was one of the disorders of the hemorrhagic diathesis, viz., pur-

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pura hæmorrhagica, as proved by the small hemorrhages in the skin.

The autopsy confirmed this, but revealed also another disorder in addition to it. We found an old and healed tuberculosis of the lungs, and, arising from this source, an acute miliary tuberculosis of the pleura, producing the hemorrhagic effusion. The pleura was covered with miliary tubercles and fibrin, and its cavity filled with dark red clots. The left lung exhibited some old cicatrices, and the right several similar but smaller ones. This condition could not, of course, have been detected during the life of the patient. Our revised diagnosis must be, then, "pleuritis hæmorrhagica tuberculosa."

In the ileum we found two small tubercular ulcers with extensive ecchymotic surroundings—another example of the tendency to hemorrhage.

This case is an unusual one, in that the acute eruption of tubercles was almost purely local. It is also of very rare occurrence that without any affection of the lung we find such a large hemorrhage into the pleural cavity.

ORIGINAL ARTICLES.

TWO OVARIOTOMIES IN THE SAME PATIENT.[1]

BY JOSEPH RANSOHOFF, M.D., F.R.C.S. ENG.,
PROFESSOR OF DESCRIPTIVE ANATOMY AND CLINICAL SURGERY IN THE MEDICAL COLLEGE OF OHIO.

THE kindness of Prof. Schœnborn, of Kœnigsberg, permits me to lay before you the complete clinical history of a patient upon whom laparotomy was twice performed for ovarian disease. The first operation was made by Schœnborn in 1880, the second by myself in 1884.

M. A., aged 24, married, was admitted into the surgical clinic of Kœnigsberg, July 7, 1880. Her father died of some pulmonary affection. Mother and two younger sisters living and in good health. Two sisters and a brother died in childhood from causes unknown to the patient. Until her marriage, five years ago, the patient was in perfect health. Soon after marriage irregularities of menstruation supervened. The menstrual flow would appear at intervals of eight to ten days and continue for a like period. Three and half years after her marriage, the menses disappeared for seven weeks, when, after reappearing irregularly for a short time, they ceased entirely. During the last four years the patient has been conscious of an unpleasant sensation in her abdomen, but until lately has not suffered any pain. Eighteen months ago she discovered an abdominal tumor which has gradually increased in size. In the last few months the pain has been of sufficient severity to confine her to bed for a week at a time. Patient has never been pregnant.

Status præsens: Patient presents a robust appearance and is well nourished. Thoracic organs normal. The abdomen is distended by a uniform swelling which extends further towards the right side than the left. The integument is somewhat taut; linea alba not pigmented. The greatest measurement of the abdomen is two inches below the umbilicus, where the girth measures thirty-six and a half inches. Other measurements of the abdomen are: eight and a half inches from umbilicus to anterior superior spinous process; eight and a half inches from the symphysis pubis to the umbilicus, and seven inches from the latter to the ensiform cartilage. Palpation reveals the presence of a firm and slightly uneven tumor, on the left aspect of which a number of prominences can be felt. Immediately above the symphysis a small portion of it can be grasped by the hand and moved from side to side on the rest of the growth. Vaginal examination does not reveal the presence of a growth. In a bimanual exploration the fingers can be felt moving upon each other, the flattened cervix uteri intervening between them. The sound enters the cervix readily, but can be pushed into the body only by greatly depressing the handle of the instrument.

Diagnosis: Abdominal tumor.

The operation, July 28, 1880, was made under a spray of salicylic acid. After the surface of the abdomen had been thoroughly cleansed, an incision was made in the linea alba from above the umbilicus to the symphysis. After the hemorrhage was checked, the peritoneum was divided on a grooved director. The smooth surface of the tumor, presenting a number of very large veins, was thus exposed, and the absence of adhesions was established by the introduction of the hand. The tumor sprang from the right ovary. Since fluctuation could not be detected at any part, the use of the trocar was dispensed with and the tumor drawn through the wound and its pedicle was caught in a clamp. After the tumor was cut away, the pedicle was tied with silk ligatures and returned to the abdominal cavity. It was now observed that the left ovary was somewhat enlarged. The toilette of the peritoneum having been completed, a drainage-tube was inserted into the lower angle of the wound. This was closed by six quilled sutures which included the peritoneum and twenty superficial sutures. Lister dressing.

29th.—Patient complains of pain in the abdomen for which ten drops of tinct. opii were given. Catheterization resorted to.

30th.—Vomited twice during the night and repeatedly during the day. Pain in abdomen increased. Hypodermic injection of morphia at night.

31st—Vomited once during the night. Pain continues unabated. Treatment continued.

August 2.—Vomiting has ceased and pain diminished. To the left of the wound, the abdomen is quite sensitive to pressure. Pulse 128, temperature 104.6°. The drainage-tube which, contained an admixture of blood and pus, was withdrawn. All the deep and seven superficial sutures were removed. The Lister dressing was reapplied and treatment was continued.

6th.—The dressing was changed and the remaining sutures were removed. The wound gapes in its upper and middle thirds, and a considerable quantity of pus escapes through the punctures made by the needle. The margins of the wound are approximated by strips of adhesive plaster. The Lister dressing is substi-

[1] Read before the Section in Surgery, American Medical Association, April 29, 1885.

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tuted by one of cotton batting. From this date the condition of the patient gradually improved, and she was discharged from the hospital on the 8th of September, cured. The following is the anatomical description of the tumor as given by Prof. Baumgarten. "The tumor, somewhat larger than an adult head, is globular in shape. Its surface is smooth, and on one side the normal tube is attached. A section reveals it to be an almost solid mass from which, as from an opened honeycomb, there oozes from innumerable orifices a thick grayish-white secretion. Microscopic examination shows that the tumor consists of cysts, for the most part microscopic in size, the walls of which are covered by a single layer of cylindrical epithelium and are filled by mucoid masses."

About two months after the patient left the hospital at Kœnigsberg, she began to menstruate, and there has been no interruption to the catamenial flow since. In 1881 she came to this country, and remained well until the summer of '84. In the spring of the previous year she discovered a distinct abdominal swelling which slowly increased in size. From time to time severe abdominal pains, associated with febrile attacks, supervened, for which the patient sought relief in bed. While these attacks lasted, the patient suffered greatly from vesical and rectal tenesmus. When I saw the patient in October, 1884, she presented the following condition: "Rather robust woman, apparently in fair health. Examination of the thoracic viscera gives negative results. The abdomen presents evidences of the first laparotomy. Over a surface two inches in width and extending from a point three inches below the ensiform cartilage to the pubic symphysis, the abdominal wall is greatly attenuated, and has the appearance of cicatricial tissue. Two inches above the pubes a firm ovoid body an inch in width and of somewhat greater length is felt to be loosely attached to the cicatrix. Through the latter the smooth surface of a tumor is readily recognized, and the absence of adhesions established. The tumor is central, and the abdomen presents a 'dome-like' appearance. Its measurement a little below the umbilicus is forty-two inches. Percussion of the abdomen yields a dull note except in the epigastric and lumbar regions, where the intestinal percussion sound is elicited. On deep palpation an indistinct sense of fluctuation is experienced. Vaginal examination shows the cervix high up and almost out of reach. In the posterior cul-de sac, more pronounced on the left, the vaginal wall is bulged downwards by an elastic swelling which is unconnected with the uterus, and by bimanual examination is shown to be a part of the abdominal tumor. By greatly depressing its handle the sound can be introduced into the uterus about two inches." In view of the history of the case, and the physical signs presented, the diagnosis of multilocular ovarian cyst with extensive pelvic adhesions was made, and an operation advised. This was performed Nov. 19th, one week after the cessation of a menstrual period. Drs. Palmer, Krouse, Wilder, and McKee were present, and rendered most valuable assistance.

Owing to the great width of the cicatrix, the incision was made in the median line from a point two inches below the umbilicus to a point equally distant from the symphysis This incision was a little over four inches in length, and was attended by very little hemorrhage. When the peritoneum was divided the anterior surface of the tumor was exposed to view and presented the typical grayish color and glistening appearance of the multilocular cyst. The hand being introduced into the abdomen, the absence of anterior and lateral parietal adhesions was established. The tapping of the cyst was followed by the escape of a pailful of thick ropy chocolate-colored substance, but to permit the withdrawal of the tumor it was necessary to enlarge the incision. When the pedicle was looked for, none could be found. The floor of the sac was so firmly adherent to the rectum, the body of the uterus and left side of the abdominal wall above the latter that a separation of these adhesions was wholly out of the range of possibility. No trace of the pedicle of the right ovary was discoverable. The peritoneal surface of the anterior abdominal wall from the umbilicus downwards had lost its glistening appearance, appearing roughened and mammillated. In view of the extensive pelvic attachments, it was decided to sew a portion of the cyst into the abdominal wound.

After thoroughly cleansing the peritoneal cavity, the basal portion of the cyst was fixed in the lower three inches of the wound by ten silver wire sutures, which were made to include an inch of parietal and cyst wall, and by a like number of superficial sutures of catgut. The extruded portion of the tumor was then removed with the thermo-cautery, and the upper portion of the abdominal wound closed. To prevent the formation of a fistula from the small part of the cyst retained, its surface was everywhere touched with the thermo-cautery. A glass drainage-tube being then inserted, and the wound covered with boracic acid, an iodoform gauze dressing was applied. Time of operation, fifty minutes.

The patient rallied from the ether without vomiting, and in the evening the temperature was normal, and pulse 96. A hypodermic injection of morphia was administered.

Nov. 20.—During the night severe pain in the abdomen supervened. The dressing is saturated with a fluid similar to the contents of the cyst. No point of tenderness. Morning temperature 100.6°; evening temperature 101.6°; pulse 120.

21st.—Passed a fair night under the influence of an anodyne. Has taken considerable milk and champagne. Abdomen very much distended and tympanitic, but not tender. Morning temperature 101.5°; evening temperature 104°. Dressing changed and peritoneal cavity washed out with a saturated solution of boracic acid.

22d.—Patient complains of an intense desire to evacuate the bowels. Is menstruating. When the dressing was removed, it was noticed that the discharge was becoming purulent, and that large shreds of gangrenous tissue were separating from the retained portion of the cyst wall. Tympanitic distention unchanged. Morning temperature 101°; evening temperature 105.5°.

23d.—Menstruation continues. The dressing is saturated with a profuse purulent discharge. Drain-

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age-tube temporarily removed and large sloughs removed from the wound by irrigation. Morning temperature 100°; evening temperature 100.5°.

25th.—The abdomen is still distended, and patient complains of some pain. Condition of the wound improved. The sloughs have all become detached, and the wound is covered with healthy granulations. Morning temperature 99°; evening temperature 99.5°.

27th.—Menstruation has ceased. A copious evacuation of the bowels followed the administration of an enema.

From this time forward the patient gradually improved for two weeks when a rise in temperature, an increased pulse-rate and marked pain supervened. On examination of the abdomen an indistinct induration to the left of the wound was discovered. On the 14th of December, fluctuation was quite apparent, and twelve ounces of creamy pus were removed with an aspirator. The benefit derived from this was temporary. Reaccumulation of pus in quantity sufficient to be felt by vaginal examination took place, for the relief of which a free incision was made through the abdominal wound. From this time on, the patient rapidly recovered, and was discharged from the hospital ten weeks after the operation. The wound has now been completely closed for three months, and the patient is enabled to perform ordinary household duties. Since the operation the catamenial flow has appeared four times, each period lasting from three to five days.

This case, which I have taken the liberty to present, opens for discussion three questions of considerable importance. They are the comparative frequency of cystic disease in both ovaries, the advisability of performing double ovariotomy when the disease in one gland is but little developed, and the method of treating the cyst by suture to the abdominal wall after more or less of it has been excised.

The observations of Scanzoni based on post-mortem examinations, that in fifty per cent. of cases both ovaries are affected, is not verified by the clinical experience of most operators. In 366 operations for the removal of ovarian growths witnessed by Dorsan, the tumor involved both ovaries in 48, and in 20 other cases, "suspiciously enlarged" ovaries were removed after the tumor had been cut away. Thus in 18 per cent. of his cases both ovaries were affected. In 132 ovariotomies Goodell found it necessary to remove both ovaries in 50 per cent. of all cases. In 293, 101, 229, and 56, and 1000 operations made respectively by Koeberlé, Tait, Keith, Olshausen and Spencer Wells, double ovariotomy was necessary in 37, 27, 13, 9 and 82. While according to the experience of Wells both ovaries must be removed in 8 per cent. of all cases, according to that of others double ovariotomy is indicated in 16 per cent. of all cases. An examination of these statistics likewise shows that different operators are far from agreed as to what constitutes sufficient disease in the second ovary to call for its removal. It must be remembered, in this connection, that the removal of the second ovary adds very much to the danger of the operation. While from single ovariotomies, Wells and Koeberle show a mortality of 22 per cent., the former in 82 double ovariotomies has lost 34 per cent., whereas, 51 per cent. of those operated on by Koeberlé for bilateral ovarian disease have died.

In view of these facts, and the youth and conjugal relations of many of these patients, a question as to the propriety of removing both ovaries at one operation may be raised. Unless the less diseased gland be the seat of quite marked multilocular cystic degeneration, it would probaby be better in many cases to leave it undisturbed, or to empty the cysts of their contents. This was practised by Wells in a girl of 19, from whom he had removed the right ovary. "The left ovary was enlarged to nearly double the normal size. Two follicles, about the size of cherries, were distended by clot. These I laid open, turning out their contents. It seemed hard to unsex a girl of 19, and, if the disease should progress, a second ovariotomy could still be done. This operation was performed in November, 1864. After her marriage the patient gave birth to four children, and when last heard from, in 1881, she continued in good health." The certainty of sterilizing a woman by double ovariotomy should make us hesitate to perform it on young persons. In thirty-two cases which I was enabled to collect in which the operation was twice performed on the same patient, children were borne by five of the cases. The aggregate number of children born between the two operations was fourteen. In one of Atlee's cases the patient was delivered of a child, although the interval between the two operations was only sixteen months.

Another important factor that should incline the operator to conservatism in dealing with a slightly diseased second ovary is the small mortality attending second ovariotomies. Of thirty-two cases, only five, or 15 6 per cent., terminated fatally. If the case of Mears, which died two months after the second operation from an independent affection of the liver, be excluded from the fatal cases the mortality from second ovariotomies is reduced to 12.5 cent. In view, therefore, of the greater danger of double ovariotomy, and the lesser mortality of the second operations, it seems plain that the former procedure should be refrained from except in women approaching the climacteric, and unless the disease in the second ovary be quite pronounced.

From an examination of the subjoined table a rather satisfactory idea of the rapidity with which disease develops in the remaining ovary is obtained. Of thirty cases in which the interval between the two operations is noted, the disease reappeared in the second ovary to an extent sufficient to warrant a second operation, fourteen times in less than five years, and sixteen times after the lapse of that period. In seven cases a second operation became necessary in less than two years, and in three cases in less than a year. On the other hand, in six cases an interval of ten years or more existed between the two operations. In four of the recorded cases menstruation continued after the second operation.

The method of treating the cyst by sewing the small part which could not be removed into the abdominal wound is the feature of greatest practical importance in the case presented. It is almost needless to observe that this plan was adopted through necessity, and not through choice. A separation of

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No. of case.	Name of first operator and date of operation.	Interval between operations and number of births.	Name of second operator and date of operation.	Age at second operation.	Result.	Menstruation.	References.
1	Ch. Clay. October, 1846.	15 years. 5 children.	W. L. Atlee. October, 1861.	40	Recovery.	Menstruated before and after second operation.	Atlee, Diagnosis, etc.
2	W. L. Atlee. October, 1857.	7 years. Sterile.	W. L. Atlee. November, 1864.	34	Recovery.	Menstruated regularly.	Ibid.
3	W. L. Atlee. October, 1862.	16 months. 1 child.	W. L. Atlee. February, 1864.		Recovery.		Ibid.
4	Boinet. August, 1868.	10 months.	Boinet. June, 1869.		Recovery.	Menstruation continued.	Gaz. des Hôp., 1869, No. 115.
5	Boinet.		Boinet.		Death.		Koeberlé, Ovariotomie Nouv. Dic. des Sc. Méd., t. 25.
6	Baker Brown. May, 1862.	6 months.	Spencer Wells. January, 1863.	42	Death.		Spencer Wells, Dis. of Ovary, 1882.
7	Spencer Wells. February, 1865.	18 months. Single.	Spencer Wells. August, 1866.	25	Recovery.		Ibid.
8	Spencer Wells. December, 1861.	6 years. Single.	Spencer Wells February, 1868.	58	Recovery.		Ibid.
9	Spencer Wells. June, 1862.	7 years. 3 children.	Spencer Wells. June, 1869.	35	Death in 66 hours.		Ibid.
10	Spencer Wells. February, 1873.	16 months. Single.	Spencer Wells. June, 1874.	32	Recovery.		Ibid.
11	Spencer Wells. May, 1870.	5 years. Single.	Spencer Wells. June, 1875.	32	Recovery.		Ibid.
12	Spencer Wells. April, 1873.	3¼ years. Single.	Spencer Wells. July, 1876.	23	Recovery.		Ibid.
13	Spencer Wells. May, 1869.	7 years. Married.	Spencer Wells. July, 1876.	45	Recovery.		Ibid.
14	Spencer Wells. October, 1872.	4 years. Married.	Spencer Wells. November, 1876.	41	Recovery.		Ibid.
15	Spencer Wells. December, 1865.	11 years. Married.	Spencer Wells. December, 1876.	46	Recovery.		Ibid.
16	Spencer Wells. May, 1870.	8 years. Married.	Spencer Wells. February, 1878.	61	Recovery.		Ibid.
17	Spencer Wells. May, 1875.	5 years. Married.	Spencer Wells. June, 1880.	54	Recovery.		Ibid.
18	Spencer Wells. August, 1876.	5 years. Married.	Spencer Wells. November, 1881.	50	Recovery.		Ibid.
19	Miller. October, 1866.	4½ years. Single.	Caswell. May, 1871.	50	Recovery.		N. Y. Med. Record, vi, p. 294.
20	Krauel. July, 1850.	25 years. 3 children.	Schatz. May, 1875.	51	Recovery.		Arch. f. Gynäkol., Bd. ix. S. 487.
21	Potter. April, 1858.	17 months.	Potter. September, 1859.		Recovery.		N. Y. Med. Record, 1867, p. 70.
22	Th. Keith. 1863.	10 years.	Th. Keith. 1873.	70	Recovery.		Brit. Med. Journ., 1875, I, p. 836.
23	V. Dumreicher. July, 1877.	5 months.	V. Dumreicher. December, 1877.	18	Recovery.		Med. Wochenschr., 1872, No. 2.
24	Goodell. 1879.	5 years.	Goodell. December, 1874.		Death.		THE MEDICAL NEWS, March 21, 1885.
25	J. E Mears.	13 years. Single.	J. E. Mears. Complicated by fatty liver.	38	Death two months after operation.		Bost. Med. and Surg. Journ., 107, p. 609, and personal communication.
26	C. H. Carter.	3½ years.	C. H. Carter.	36	Recovery.		Lancet, 1883, 1, p. 1038.
27	W. L. Atlee. September, 1872.	3½ years. 2 children.	T. M. Drysdale. February, 1881.	39	Recovery.		Amer. Journ. of Obstet., 14, p. 901.
28	W. L. Atlee. December, 1863.	18 years.	T. M. Drysdale. May, 1881.	65	Recovery.		Ibid.
29	Bantock. 1878.	3 years.	Bantock. February, 1881.	52	Recovery.		Quoted by Doran, Tumors of Ovary, 1884, p. 135.
30	Alex. Dunlap.	3 years.	Alex. Dunlap.	25	Recovery.		Personal communication.
31	Alex. Dunlap.	5 years.	Alex. Dunlap.	31	Recovery.		Personal communication.
32	Schonborn.	4 years.	Ransohoff.	29	Recovery.	Menstruation continued	

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the pelvic adhesions would have involved the integrity of the uterus, ureter, and rectum, and would, with little doubt, have been followed by a speedily fatal issue. It is remarkable, therefore, that while this substitute for ovariotomy has been performed a considerable number of times, and is recommended by Mueller, Schroeder, Pernice, and Rheinstaedter, English and American writers have given it little or no consideration. Of incomplete operations, it is manifestly the most perfect that can be devised, being particularly adapted to cases of broad pelvic adhesions. By closely uniting the remaining portion of the cyst-wall to the lower part of the abdominal wound, the drainage of the peritoneal cavity is not interfered with, and the lining membrane of the cyst-wall is treated extraperitoneally. The most potent arguments against the procedure, for which I would venture to suggest the term "ventro-cystorrhaphy," to distinguish it from other incomplete operations, are, that there is danger of recurrence of the disease, or that the profuseness of the discharge or its long continuance leads to a fatal exhaustion. While experience has shown that these results sometimes follow, it appears to me that they can generally be averted by freely incising the secondary cysts which remain, and by destroying their secreting surfaces by the free use of the thermo-cautery; thereby the cyst-wall will be speedily converted into a healthy granulating wound, which cicatrizes with the rapidity and permanence of ordinary wounds.

ON THE VALUE OF A PROPER RESPIRATORY DIET IN PHTHISIS.

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AMID the conflicting views entertained upon questions connected with the etiology and pathology of phthisis, two facts concerning the disease stand prominently forth, attested by universal experience.

The first is that the disease, or group of diseases, known as pulmonary consumption, is clinically preeminently characterized by failure of nutrition; and the second follows almost as a corollary, that those measures which tend to conserve and restore nutrition, give the best results in the therapeutic management of the disease.

The importance of good food, proper exercise, and fresh air, is not to be announced at this date as a new discovery; nor are the benefits to be derived from those agents of the materia medica variously classed as corroborants, tonics, promoters of constructive metamorphosis, matters of dispute or discussion.

It is not the purpose of the present article to review in detail the various plans of treatment proposed and in vogue, nor to discuss the comparative merits of different drugs in meeting certain indications. The writer desires to call prominent attention to a single feature in the management of cases of consumption, the importance of which is theoretically admitted by all, but which is practically too often neglected; namely, the furnishing of a proper respiratory diet.

That a due supply of oxygen is essential to maintenance of nutrition, is a fact so trite that it hardly seems to deserve especial mention; yet we rarely find the provision of this all-important agent made that decided feature of a plan of therapeusis which a knowledge of its necessity should dictate. It is true that consumptive patients are, in a general way, told to "keep out of doors as much as possible whenever the weather permits"—and that many are sent to various so-called health resorts, in the hope that a milder climate will permit more frequent open-air exercise, or that some peculiar quality in the atmosphere of the chosen place—varying with the theories or prejudices of the physician—will exert a beneficial influence upon the progress of the case. But setting aside the again conflicting theories and assertions as to what constitutes the most desirable climate for the phthisical, the fact remains that those who can avail themselves of change of residence constitute but a small proportion of the number of sufferers. How can we supply respiratory pabulum to those who are compelled to stay at home, where the weather does not permit the requisite amount of life in the open air; to those who are too feeble, or whose avocations are too confining, to allow them to avail themselves of the opportunities afforded by fine weather?

The inhalation of oxygen has been proposed as a measure theoretically indicated to favor nutritive processes in the consumptive. I have had no personal experience with this plan of treatment, having been deterred from resorting to it by the adverse dictum of J. Solis Cohen,[1] who found but a temporary benefit to result from its employment; followed, as Fourcroy had previously recognized by a more precipitate decline.

The inhalation of air subjected to compression, a procedure most prominently advocated by Waldenburg[2] is, however, a means of therapeusis in consumption, not properly appreciated, at least in the United States. The effect is twofold, mechanical and chemical; but the greater value is probably attributable to the former. That an increased quantity of oxygen is supplied with the increase of pressure is of course self-evident, but of what avail would this alone be when the quantity of oxygen supplied under ordinary pressure far exceeds the amount utilized by the normal lung? It is not the quantity of oxygen supplied, but the quantity of blood exposed to oxygenation, to which attention must be directed. Entering the lungs under pressure, however, the air is capable, mechanically, of producing several very desirable effects.

One of the most notable features of the respiratory act in consumptive patients, is the deficient expansion of the chest. Whether this be due to actual consolidation of pulmonary structures, or simply to muscular weakness, it prevents the due interchange of gases so essential to normal respiration, and limits the area of blood exposed to the atmosphere. No matter how balmy the climate, nor how fair the day, a patient with insufficient capacity of expansion

[1] Inhalation; its Therapeutics and Practice, Second Edition, Philadelphia, 1876, p. 77.

[2] Die Pneumatische Behandlung der Respirations und Circulations Krankheiten, Berlin, 1875.

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must, out of doors as well as indoors, not only fail to inhale a due supply of oxygen, but also fail to exhale the waste products of respiration. Where strength is not too far gone this may be in a measure overcome by voluntary forced respiration; but with the majority of patients some extraneous force must be invoked. This is readily found in the expansile power of compressed air, which forces its way into disused alveoli, and gradually increases the respiratory capacity. That the increase in chest measurement caused by inhalations of compressed air is due to increased expansion and to the forcing open of disused air-cells, and not to the production of an emphysematous condition, is proved by the fact that it is an actual increase in vital capacity. The act of expiration is perfectly performed, the tidal air is fully expelled, and the capacity for forced expulsion of the reserve air is retained.

Auscultation reveals the presence of the respiratory murmur in localities where it had not been previously manifested. I have frequently observed the progress of this reopening of disfunctionated alveoli. At first, the respiratory murmur in the disused areas is fitfully present towards the close of the administration. Inspiration in these situations is often accompanied by a peculiar intermittent râle, which simulates very closely the crepitant râle of the first stage of lobar pneumonia, but is rougher and larger; as if the current of inspired air made interrupted pressure against the agglutinated surfaces of the infundibuli. Gradually the râle disappears, the vesicular murmur becomes clearer, and is heard from the beginning of the inhalation, to some time after its close; and by degrees becomes firmly reëstablished during voluntary respiration. The amount of increase in vital capacity attainable by the persistent and systematic inhalation of compressed air is almost incredible.

Domanski,[1] of Cracow, reports a case in which a gain of 250 cubic centimetres (2850-3100) was produced, and another in which 200 cubic centimetres (2100-2300) increase was obtained. Oertel[2] refers to still greater gains, even 1000 centimetres. In the case of an officer of the United States Navy, under the care of Dr. J. Solis Cohen and myself, the vital capacity was increased from 320 cubic inches to 345 cubic inches, by inhalations of air under a pressure of $\frac{1}{60}$ of an atmosphere, twice daily, for a period of two weeks; one of Waldenburg's cylinders being emptied three times at each visit. This patient was a man of tall stature (6 feet, 2 inches) and powerful build, with the signs of a limited area of consolidation at one apex. In a man 5 feet, 4 inches high, with signs of condensation over the whole of one lung, the vital capacity was increased from 135 to 155 cubic inches.

As to the exact mechanism of the production of this increase, I hesitate to speak positively. The results cited cannot be obtained in every case, even of incipient disease. The amount of space gained as represented by the extent of the area over which respiratory murmur is more or less completely restored, varies greatly. In no case, however, which has been deemed suitable for the treatment, have I failed to observe some improvement in the chest expansion, and in respiratory capacity; although some of these cases have been quite far advanced.

I am inclined to believe that the process of restoration is three-fold. There are, roughly speaking for the purpose of this argument, three classes of alveoli in the phthisical lung. First, the alveoli of healthy areas, which are not always fully expanded, owing to deficient tone in the respiratory muscles. Secondly, alveoli around which, or around the terminal bronchioles of which, a moderate degree of congestion and low grade inflammatory infiltration exists, encroaching, to a greater or less extent, upon their calibre; an impairment increasing as we approach the third class, namely, those occluded or obliterated by actual eruption, deposition, or infiltration of tubercle. Now the increased capacity of the first class is clearly attributable to improvement in muscular tone, resulting directly from the systematic gymnastics to which the thorax has been subjected, and increased indirectly by the general improvement in circulation and nutrition, which is the ultimate aim of the process. The increased capacity of the second group of air cells is partially due to the same cause, but the inference seems plausible, that the systematic compression of congested tissues and inflammatory products due to the dilation of the bronchioles and alveoli by the expansile power of compressed air, results in unloading of engorged vessels, and absorption of exuded and proliferated cells; in perfect analogy with the results of mechanical compression externally applied in many surgical cases. Whether any improvement whatever results in the condition of the third group of obliterated cells, namely, those in and around which tubercle has been developed, is a doubtful question.

But while the increase of respiratory capacity and the consequent improvement of nutrition, are the principal objects gained by inhalations of compressed air, they are not the only ones. When the treatment is first instituted the increase of cough and expectoration is marked. Retained secretions are stirred up and expelled from alveoli, bronchioles, and bronchiectasic cavities. Gradually as the air-cells and air-tubes become rid of accumulated and pent-up masses, the cough and expectoration diminish, the character of the expectorated material improves, and in favorable cases cough finally ceases. Thus the deleterious effect of the retention and decomposition of effete materials as well as the exhaustion consequent upon harassing and often ineffectual paroxysms of cough are obviated; resulting in still further gain of breathing space and in conservation of strength and nutrition. The beneficial effects of this increase in vital capacity can hardly be exaggerated. The mode of death in chronic phthisis, whether it be fibroid, catarrhal, or tubercular, whether the duration of the disease be protracted or comparatively short, clearly points to diminution of breathing space as the principal source of danger, and the establishment of so-called vicarious emphysema in cases of phthisis and chronic pneumonia is a therapeutic hint of Nature's, clearly indicating the

[1] Berlin. klin. Woch., Jan. 4, 1875; cited by J. Solis Cohen, op. cit. p. 46.

[2] Handbuch. der Respiratorischen Therapie. Leipzig, 1882, p. 412, *et seq.*

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direction in which man's efforts should be directed. Increase of appetite is soon manifested, and if sufficient food of proper character and quality be provided, increase of weight rapidly results. In one case, that of a girl of eighteen years, referred to the Philadelphia Polyclinic by a physician of this city, a gain of eleven pounds was noted after six weeks of treatment. One of the most striking and earliest manifestations of improvement is the restoration of natural slumber.

The effects upon the circulation and upon the performance of the respiratory act itself, are of sufficient importance to warrant a separate study. They vary of course with the degree of pressure, the manner of administration, and the duration of the inhalations. Suffice it to say for present purposes, that while immediately after the ordinary administration, which consists of from ten to twenty-five or thirty inspirations of air under pressure varying from $\frac{1}{80}$ to $\frac{1}{30}$ of an atmosphere, the rapidity of the heart's action is always increased, and its force diminished, while the frequency of respiration is sometimes increased and sometimes lessened; after a few minutes rest, the depth of respiration and the power of the cardiac contractions will be augmented, while the frequency of respiration and pulse will be notably lessened. This process continuing, by degrees a permanent reduction is effected in the rate of pulse and of respiration, and the heart becomes permanently stronger. Thus, in the case last referred to, after two months treatment, respiration was reduced from 28 or 30 to 21; and the pulse from 104 to 88. I have never been able to obtain a constant series of results in regard to temperature; but coincidently with the reduction of the abnormal frequency of pulse and respiration, an abnormal temperature becomes lowered.

The advantages to be derived from "pneumatic treatment" are so great, and in many cases so striking, that any one who has once resorted to the method, will not fail constantly to increase his use of it; and it is difficult to refrain from writing so enthusiastically that the charge of extravagance or overstatement will not be brought. Of course, it is to be conjoined with proper dietetic, hygienic, and medicinal measures, according to the varying indications of different cases, and different stages in the same case. Of course, it is not equally applicable to every case, and may fail to fulfil all our expectations in instances apparently promising. Nevertheless there is no one agent capable of producing the same amount of good in the vast majority of cases of early phthisis or in chronic pneumonias and pleuro-pneumonias, which have not been of too long duration. That it has not met with more general introduction must be due to the expense of the apparatus hitherto devised, and the time which the administration of an inhalation occupies. It is hoped that both of these drawbacks will be, in a great measure, removed by the modification of the apparatus of Waldenburg, devised by the writer, and described in the *New York Medical Journal*, Oct. 18, 1884. This apparatus, essentially a small gasometer with a foot bellows attachment, can be procured at a moderate cost, and after the first few visits, can safely be entrusted to an intelligent nurse or patient, for home use.

PNEUMONOKONIOSIS.[1]

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THERE are certain employments whose victims are confined to rooms in which the air is laden with dust of either an organic or inorganic nature.

There are the workers in coal and graphite mines whose lungs, by the inhalation of their dust, become miniature coal mines in the course of time. There are the laborers in iron and steel, such as file-makers, grinders, pin-pointers, cutlers, and needle-makers, the air respired by whom containing sharp, irregular, angular particles of iron, steel, silver, and emery—substances exceedingly difficult of removal. There are the workers in stone, clay, and glass, and in jewel-polishing, such as cement-makers, potters, glass-grinders, stone-cutters, lime-burners, plasterers, brick-makers, diamond-cutters, and masons. Then we have those whose employments lead them to breathe an air full of matters contributed by the vegetable kingdom, carpenters, chimney-sweeps, moulders, millers, cotton-carders, grain-shovellers, charcoal-burners, and workers in flax, hemp, and tobacco. Moreover, such occupations as brush-making, wool-cleaning, silk-carding, making feather ornaments, hair-picking, and button-making expose the operatives to the inspiration of various animal substances, some of exceedingly irritating nature.

In breathing the ordinary dusty atmosphere of cities, the quantity of dust inhaled is small, and it is easily removed by natural provisions in the lungs. But besides the dust of the streets in cities we have an enormous quantity of carbon poured into our urban atmospheres by locomotives, manufactories, and dwelling-houses.

There is for this reason more dust inhaled than can be removed by secretion, gravity, ciliary motion, and coughing. This excess of dust remains in the lungs. In looking at the epithelial cells lining the air-passages with a magnifying power of three or four hundred diameters, many of these are found to contain in their protoplasm dust-particles of various sizes and shapes. I always find dust cells in examining the sputum of hospital patients. The molecules have penetrated the cell walls, or perhaps have been *let in*, so to speak, by the cell itself. These particles now pass through the other side of the cell, or between cells, into the connective tissue containing the network of capillaries of the pulmonary, bronchial, and lymphatic systems. In the connective tissue are wandering cells and young connective-tissue cells, probably identical with white blood cells, which take up many of these foreign molecular matters and carry them about wherever they go. Large numbers of the particles of dust remain in the tissues, but more enter the lymphatic spaces and vessels which they completely fill, or are carried by their currents to the glands along the bronchi previously described. Here they lodge, these glands becoming the chief storehouses of inhaled dust. This is what becomes of the surplus of dust daily inhaled by every inhabitant of every city. Gradually the lungs become discolored

[1] Read before the Buffalo Microscopical Club.

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by long lines and patches of black carbonaceous matter.

I have been interested for the past eighteen months in looking at the comparative amount of carbonaceous deposit in the lungs and mediastinal glands in over two hundred post-mortem examinations of persons of all ages from one month to eighty years. Up to two or three years there is no appreciable amount of dust deposited in the lung, but the imperceptible daily inhalations gradually, in the course of time, put their indelible black mark on every lung. In innumerable microscopic sections of lungs I have made, I never failed to find carbon deposits in the walls of the air vesicles and in the lymphatic spaces. In persons of seventy or eighty years of age, where senile atrophy has begun to lessen the size of the lungs, these organs are as a rule very dark, and often even entirely black. The bronchial glands are enlarged and like lumps of coal, where their natural color is white. If the lungs and glands show little discoloration at this time, it is because the person has lived a great part of his life in the country or at sea. Still it is probably very rare that this deposition of dust in the lungs of city people brings about serious disturbances. Undoubtedly, there is often a thickening of the walls of air vesicles, occasional faint local congestions, what might be termed in fact a slow, a fifty year chronic pneumonia which seldom gives any trouble. It is true that certain parts of delicate lungs irritated by dust might make a pleasant and fertile garden for the bacillus tuberculosis, or the smouldering chronic pneumonia might become a conflagration, an acute pneumonia, a phthisis, or a consumption. Perhaps, as some authorities state, this inhalation of dust may account, to a degree, for the death by consumption of twenty-five per cent. more people per thousand in cities than in the country.

Thus far, I have been speaking of the lungs of *all* dwellers in cities who suffer but to a moderate extent from pneumonokoniosis. Now let us turn to the operatives in the various dusty occupations I have mentioned. I will enumerate results in a few of them only. Some kinds of dust being more irritative than others, various degrees of chronic bronchitis, or bronchial catarrh, are brought about. The walls of the air passages and bronchial tubes thicken to an enormous extent, owing to a chronic pneumonia, in which new connective tissue is formed. Masses of stored-up dust may excite acute inflammations, followed by the formation of abscesses and cavities; in fact, a fatal phthisis is brought about. In the bronchial glands it is no uncommon thing for inflammation of a suppurative nature to take place. These glands may become so large as by pressure on a bronchus to offer serious mechanical interference to respiration. Coaldust does not seem to irritate as much as other substances, and though in coal-miners the lungs may be so filled with anthracite as to leave little trace to the naked eye of lung structure, yet the number of deaths from phthisis among them is less than one per cent. Here is a man of sixty-seven years, who may serve as an example: Not long ago, as an Erie County Post-mortem Examiner, I was sent by the Coroner to make an autopsy on the foreman of the "cleaning-room" of the large Jewett Stove Works in this city. He had died suddenly. The cause of death was fatty heart, but this fatty metamorphosis was due no doubt to the remarkable condition of the lungs. I make the following abstract from my record of the autopsy:

"On opening the thorax the lungs did not contract as usual. There were old and strong adhesions of both pleuræ everywhere. Both lungs were totally black over their whole surface. They were unusually hard and lobulated like a cirrhosed liver, only the nodules were larger. In numerous small patches there was great emphysema, some of the air-vesicles being the size of peas. Both lungs were very œdematous. The whole upper lobe of the right lung was one extremely hard tumor, like a fibroma, and perfectly black on cutting through. Upon touching with the hands the fresh-cut lung surface they become discolored, as if one were handling bone-black with wet fingers. The trachea, bronchi, and bronchial tubes had clean and white mucosæ. The bronchial and tracheal glands were much enlarged, very hard, and perfectly black throughout."

I visited the "cleaning-room" where he had been employed for thirty-one years and examined the dust under the microscope. In this room castings are brushed off, and the air is so dense with dust that it is almost irrespirable. The dust is chiefly charcoal from the moulds, but a little sand is mixed with it. A large force of men is employed in this room, and most suffer more or less with pulmonary difficulties.

Millers and carpenters suffer to the extent of ten per cent. from phthisis. Graphitosis pulmonum is not oftener followed by consumption than anthracosis pulmonum. I have some microscopic sections of lung from Silesian graphite-miners, prepared by me in Vienna. The men lived to a good old age, although there seems to be little lung-tissue amidst all this graphite.

It is among iron, steel, stone, and clay operatives that the most disastrous results are obtained. Flint-makers suffer to the enormous extent of eighty per cent. from phthisis, needle-polishers following with seventy per cent., and file-cutters with sixty-two per cent. It attacks only about forty per cent. of stone-cutters, although physicians meet with so many cases that they have given it the name of "stone-cutters' consumption." Grindstone-makers, sieve-makers, grinders, lithographers, cigar-makers, brush-makers, and glass-cutters average between 40 and 50 per cent. of deaths from phthisis. Gussenbauer has described a disease of the bones and marrow due to the inhalation of mother-of-pearl dust by button-makers. Among cotton-workers we have the form of consumption known to the profession as "cotton phthisis," the dust raised by beating being composed chiefly of silicious particles, cotton fibres, and woody matter; they all suffer more or less from the bronchitis, dyspnœa, etc., which are the phenomena of that form of pneumonokoniosis known as byssinosis pulmonum. Moulders suffer from anthracosis pulmonum, which frequently results in phthisis. They use exceedingly fine charcoal in their moulds when casting bronze, copper, and iron, which fills the atmosphere about them. Among potters the dust raised causes bronchitis and emphysema, the latter

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being so common as to give rise to the name, "potters' asthma." There is a "grinders' asthma" known among cutlers, a form of consumption, and extremely fatal.

Particles of all these substances are found in the lungs with the microscope, though sometimes their recognition is not easy. It is occasionally difficult, for instance, to distinguish between the fine molecules of coal, iron, stone, and hæmatoidin, the red pigment of the blood. The lungs may be full of a dark pigment not due to inhalation at all. This is the slaty deposit of the Germans. It is found only in chronic pneumonitis, however, where there have been extravasations of blood, followed by decomposition of red blood globules in the tissues. The red pigment, or hæmatoidin, remains there permanently and changes into a brown or black color in time. Zenker relates the case of a woman who worked in a small room for many years with red sesquioxide of iron. At the post-mortem examination the lungs were found of a bright brick color, and upon analysis some 340 grains of iron were obtained.

Among hemp, silk, flax, wool, hair, brush-making, and cotton operatives, there is seldom any difficulty in recognizing their trades from a microscopical examination of parts of their lungs. Hirt made an autopsy on a maker of feather ornaments. The air-passages were found almost occluded by feathers and dust. Sometimes among charcoal-burners one finds pieces of charcoal sufficiently large to see a pore or two under the glass. Iron and steel particles may be distinguished by proper chemical tests, such as nitric acid and ferrocyanide of potash. The tests for silicic acid will often reveal the presence of stone or glass.

In American cities, where there is a large grain trade, and where are enormous elevators, as here in Buffalo, there is a form of pneumonokoniosis which results very seriously to laborers who do the shovelling. It has been called "grain-shovellers' phthisis." Prof. Rochester, of this city, has had numerous cases and has written an exhaustive paper upon the subject, describing what he calls "elevator pneumonia."[1] The chaff and sand are so irritating that an acute pneumonia is quite a common thing among these laborers. I had several cases while Resident Physician in the General Hospital some five years ago. This pneumonia is very apt to terminate in phthisis.

Thus far, we have been considering solely the inhalation of *irritating* particles, some having more tendency to excite disturbance than others; and we find that they cause almost always chronic bronchial catarrh, may cause emphysema, and often lead to pneumonia and phthisis. But there are occupations which force artisans to inhale not only *irritating* but *poisonous* substances. There is among tobacconists a form of dust-inhalation known as "tabacosis pulmonum," where we not only have some of the inflammatory effects described above, but also a variety of nervous disorders produced by the nicotine of the tobacco-dust. Some of the most deleterious of the trades are those where men are compelled to work in atmospheres impregnated with particles of arsenic, mercury, lead, and copper. Those who suffer most in these occupations are makers of artificial flowers, wall-papers, lead-miners and workers, hatters, painters, enamellers, type-founders, compositors, and coppersmiths. It is said that the hair and bones of coppersmiths become green from the absorption of acetate of copper. Type-founders, compositors, and others who work in lead, inhale sufficient to irritate the lungs and at the same time to produce often the serious colic and paralysis of lead poisoning. Hatters are exposed to arsenic and mercury poisoning, while those who make green wall paper and artificial leaves are apt to suffer from arsenic.

Though I have enumerated a large number of trades, in which the inhalation of various dusts, irritative and poisonous, lead as a rule to serious if not fatal results, the list is not complete. Compared with dust inhalation, other diseases produced by dust, such as certain eczemas and disorders of the eye, are unimportant. Therefore I have said nothing of them.

I have devoted a long paper to the inhalation of particles of organic and inorganic matter, and have spoken only of *dead* particles; but a much longer article might be written upon the inhalation of *living* particles, certain plants of lower orders, fungi, schizomycetes, etc., for I have no doubt that it is chiefly through inhalation that the various bacteria of scarlet fever, smallpox, yellow fever, tuberculosis, and so on through the catalogue of contagious and infectious diseases, reach the interior of our organisms.

I have some microscopic specimens of *pneumomycosis aspergillina* from human lung, showing one of the common forms of mould growing in a gangrenous cavity. Also some sections of tubercle from the lungs of rabbits which were made to inhale air passed through and over tubercular sputum. These sections I made under the direction of Prof. Weichselbaum, of the University of Graz, who has since published his experiments on *Inhalationstuberculose*.[1]

The disease-germs are present in the air of infected districts, are carried by the winds abroad, rise from countless sewers, cesspools, and marshes, and no doubt are inspired into the lungs by thousands at times; and very likely some enter the system by the alimentary canal, though this is by no means certain even in cholera.

To the passage of these living dust-particles the delicate walls of the air-vesicles can offer little resistance, when grosser coal, iron and glass molecules pierce them so readily.

[1] See Buffalo Medical Journal, Dec. 1879.

MEDICAL PROGRESS.

COMMA-BACILLUS IN THE HUMAN MOUTH.—DR. W. D. MILLER, of Berlin, demonstrated, on February 16, at the Verein für Innere Medicin (*Independent Practitioner*, May, 1885), a comma-bacillus in the human mouth:

It is a well-known fact that comma-shaped bacilli are constantly present in the human mouth, even in a state

[1] Experimentelle Untersuchunge über Inhalationstuberculose in Wien. med. Jahrb., 1883, S. 169.

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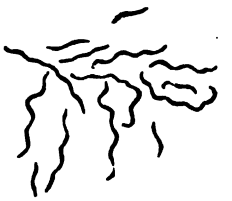
of perfect health. No particular importance was, however, attached to this fact until these bacilli were, by Prof. Lewis, asserted to be identical with Koch's comma-bacilli of Cholera Asiatica. Since that time very many bacteriologists have constantly endeavored to obtain the comma-bacilli of the mouth in pure culture. In the *Deutsche medicinische Wochenschrift*, 1884, Dr. Miller described two different schizomycetes which he had isolated from the oral secretions, and which in certain cases appeared as distinctly curved bacteria.

Not until lately, however, did he succeed in isolating from the mouth a true comma-bacillus, and it was finally accomplished, in two cases, by the use of coagulated beef-blood serum. The material from which the cultures were made was in each case found under the margin of inflamed gums in unhealthy mouths. Morphologically this bacillus is very similar to the other well-known comma-bacillus occurring as commata, either singly or in twos (S form), or in spirillum form (Fig. 1). In old cultures of gelatine all the commata

FIG. 1.

FIG. 2.



sometimes grow out into spirilli, giving a pure spirillum culture, cultivated on plates of beef-water peptone-gelatine at 20° C. They appear after twenty hours (in the second dilution), under a power of 100 diameters, as perfectly round, finely granular colonies, with a smooth border and brown color; in the same time the first dilution will be completely liquefied. They liquefy coagulated blood-serum with great energy, as do the other comma-bacilli. On the surface of Agar-Agar they form a yellowish coating, and convert the medium, superficially only, into a paste. They grow slowly on boiled potato. He has, consequently, not yet been able to establish any definite peculiarity of growth. The reactions of this bacillus are such as at once establish the fact that it is altogether a different organism from the comma-bacillus of Koch. It possesses, on the other hand, many of the peculiarities of the Finkler-Prior bacillus. Whether it is identical with this organism must be established by further experiment.

It must be remarked that this organism is, in all probability, not the one which is constantly to be found in every mouth. This grows rapidly on ten per cent. gelatine, while the latter appears to be unable to grow at all on the same medium.

Dr. Klein, in his report on Cholera Asiatica (*British Medical Journal*, February 7, 1885), states that the comma-bacilli of the human mouth have the same peculiarities of growth on gelatine with the comma-bacilli of Koch; but not one of the many forms of microörganisms, curved or otherwise, which Dr. Miller has obtained in pure culture from the human mouth, is for a moment to be mistaken for the bacillus of Koch. If Dr. Klein has really succeeded in proving by culture methods that the common comma-bacilli (vibriones) of the human mouth have the same reaction on gelatine as Koch's comma-bacillus, then it is very desirable that we should be told how he did it, it being the testimony of a very large number of bacteriologists that these organisms do not grow at all on gelatine. An exact proof that the vibriones of the mouth have, on various culture media, the same reaction as Koch's bacillus, would be a point of great weight, while a simple morphological similarity is of scarcely any consequence whatever.

In medical journals, particularly English journals, we continually meet with such statements as—"Comma-bacilli may be found in the human mouth;" "in the intestines in various disorders;" "in certain articles of diet," etc. Therefore, Koch's theory of the cause of Cholera Asiatica is entirely wrong. It is surprising that such views should ever be published by any journal. What if comma-bacilli are found in the human mouth? It is the testimony of ninety-nine out of one hundred that they are *not* the comma-bacilli of Koch. What if they may be found in stale cheese? The cheese spirilli have been proven to be altogether a different organism from Koch's bacillus. It matters not where comma-bacilli are found, or in how great numbers. The question to be decided is, whether any of these comma-bacilli are identical with Koch's, and the universal verdict is that they are not. It remains to be seen whether Dr. Klein can prove his statement as to the identity of the common mouth vibriones with the cholera bacillus.

To put down all comma-shaped microörganisms as one and the same, simply because they are curved, is no more reasonable than it would be to treat all bacilli in the same manner because they are straight, and to affirm that a particular bacillus cannot be the cause of tuberculosis, because bacilli are found in the human mouth, in the intestines, and in various articles of food.

VAGINAL HYSTERECTOMY FOR EPITHELIOMA.—At a recent meeting of the Société de Chirurgie de Paris, M. TILLOUX reported a case of vaginal hysterectomy for epithelioma, resulting in cure. Digital examination revealed the presence of an anfractuous cavity. The edges of the cervix uteri were eroded, but the culs-de-sac were intact. An extremely fetid discharge constantly escaped, and the general health was rapidly declining, as was evidenced by repeated attacks of syncope. The woman readily consented to operation, which was performed June 2, 1885. After chloroformization, the neck of the uterus was drawn down flush with the vulvar orifice. The first step of the operation was to incise the anterior cul-de-sac, and dissect away the uterus carefully from the bladder, a sound having been introduced therein to assist the operation. When the subperitoneal tissue was reached, the fingers only were used to separate the healthy from the diseased tissue. Incision of the posterior cul-de-sac was easily accomplished, and the peritoneum reached. In order to cut the two broad ligaments, M. Tillaux made use of his finger curved over the right ligament to draw it down, and also slipped over his finger, by the assistance of a Cooper needle, a silk ligature, which he knotted. For further security, a clamp was placed on the pedicle along the right border of the uterus, and the ligament was cut between the ligature and the clamp. The thread slipping at this juncture, it was necessary quickly to apply a clamp to

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the utero-ovarian arteries. M. Tillaux then, seizing the uterus, which was now held only by the left broad ligament, drew it to the vulva, fundus forward, so as to stretch the ligament, which was thus tied and cut with ease. A point of suture were applied to the vaginal borders, a large drain introduced into the peritoneum, and the vagina packed with iodoform gauze.

The results of the operation, with the exception of slight nausea, which persisted for thirty-six hours, were uncomplicated, and the patient is at present entirely well.—*L' Union Médicale*, June 30, 1884.

PHYSIOLOGICAL AND THERAPEUTIC ACTION OF COCAINE.—DR. P. LIVIERATO, in *La Salute*, III., 1885, arrives at the following conclusions relative to the physiological and therapeutic effects of cocaine:

1. Cocaine, even in small doses, has a recognizable effect upon the peripheral nerves when subcutaneously injected.

2. Small doses (one-third of a grain) are able, in some instances, to diminish local sensibility, and to relieve local pain.

3. Larger doses (one and a half grains) may produce complete anæsthesia of all sensibility in a comparatively wide area.

4. Cocaine subcutaneously injected has, besides its local action, an effect upon the circulation.

5. Such action is manifested by doses of one-sixth of a grain, and much more plainly by doses ranging from two-thirds of a grain to a grain and one-half.

6. The frequency of the pulse is increased ordinarily in proportion to the size of the dose, by a few pulsations up to eight and even fourteen during the first minute.

7. The intra-arterial pressure is lowered in most cases from a few millimetres to twenty, according to the individual and independent of the dose.

8. The ascending sphygmographic curve under the action of the drug is lowered, and the descending curve becomes very short.

9. Respiration does not undergo any modification worthy of remark from the administration of doses ranging from one-sixth of a grain to one grain and a half of cocaine.

10. Its action in healthy individuals begins to be manifested within from three to five minutes after the injection, according to the dose. Its action may endure from twenty minutes to more than one hour.

11. Cocaine is capable of diminishing and removing all neuralgic pain.

12. Such effect is not only local, but is exercised at a point remote from that at which injection was practised.

13. The anæsthetic action commences a few minutes after the injection, and continues from one and a half to six hours, according to the dose.

14. Cocaine does not produce any general phenomena in doses ranging from one-sixth of a grain to a grain and a half.

15. The subcutaneous injection of the above doses does not produce mydriasis.—*Gazzetta degli Ospitali*, June 17, 1885.

LUPUS, A DISTINCT DISEASE FROM TUBERCULOSIS.—DR. PIETRO GAMBERINI, in a theoreto-clinical study upon lupus, concludes his observations by enumerating the following propositions:

1. Lupus is not identical with tuberculosis.

2. If tubercular tissue does really exist in the degenerations due to lupus, it is not proved that such tubercular material is the cause of the lupus—holding in mind the extreme scarcity of the bacilli found in lupus by various observers—while the opposite condition seems to exist in tuberculosis—*i. e.*, an abundance of bacilli.

3. The results of experiments made upon rabbits have no corresponding facts to which exception cannot be made in the case of human beings.

4. That the destruction observed in these animals points only to tuberculosis and not to lupus, from which it may be inferred that the latter is a distinct disease, but that accidental tuberculosis may be developed in it.

5. The incurability of the cutaneous tubercular ulcer, and the opposite condition generally observed in the ulcer of lupus, prove the greatest divergence in the morbid processes peculiar to each.

6. Points of differential diagnosis between the two diseases render it apparent that they are distinct, and possess their own pathological processes.—*Giornale Italiano delle Malattie Veneree e della Pelle*, March–April, 1885.

HAIRPIN RETAINED IN THE SIGMOID FLEXURE OF THE ILEUM FOR THREE YEARS: STERCORACEOUS FISTULA, AND CURE AFTER REMOVAL OF THE FOREIGN BODY.—DR. TH. WEISS reports in the *Rev. Médicale de l'Est*, No. 3, 1885, a case in which a hairpin was retained in the sigmoid flexure for a space of three years. The patient was a child, twelve years of age, whose health was seriously affected from an abdominal affection, the nature of which was entirely unsuspected. A few days subsequent to the first examination of the child, a fluctuating mass made its appearance in the left lumbar region immediately below the crest of the ileum. An incision was made at once, and was followed by the escape of a quantity of fetid pus, but examination failed to reveal the presence of a foreign body. After the operation, some amelioration of the child's condition resulted, but in a short time a second abscess formed in the region of the great trochanter, and evidently being in relation with the first. A second incision gave exit to a great quantity of unhealthy pus and permitted the introduction of a drainage-tube. After a few days, the pus which escaped at the lumbar incision was found to be mingled with feculent matter, which shortly became so abundant that anal defecation was almost entirely suppressed. At this time, erysipelas manifested itself, but soon disappeared under treatment, and soon after both the lumbar and crural wounds entirely cicatrized. After four months, however, the fistulæ were reëstablished, and fecal matter again escaped through them. At the end of a week they again entirely closed.

Two months subsequently, a third incision was necessitated by the appearance of a new fluctuating tumor. Finally, a month later, a fourth incision being necessitated for the introduction of a drain, a foreign body was discovered in the lumbar region at the level of the crest of the ilium. Some difficulty was experienced in seizing it with the forceps. Efforts to extract it were, however, successful, and it was found to be a large-sized hairpin, bent and rough with concretions.

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Careful questioning elicited the information from the child that three years previously he had been in the habit of scratching himself with the hairpin on account of violent itching of the anus, and that on one occasion the pin suddenly escaped him, but that, as he experienced no discomfort therefrom, he had given the matter no attention.

In spite of a second attack of erysipelas, and continuous ill-health for so lengthy a period, the child completely recovered with the exception of a slight contraction of the left leg, which itself is apparently passing away by extension applied at night.—*Journal de Médecine de Paris*, May 31, 1885.

GARGLE FOR CHRONIC PHARYNGITIS.—BAMBERGER recommends the following gargle in chronic pharyngitis:

℞.—Ammonii chloridi . . . gr. lxxv.
Mellis rosæ . . . . ℥iss.
Aquæ . . . . . f℥xij.—M.

S.—Use several times daily as a gargle together with mustard foot baths. The use of tobacco is to be interdicted.—*L'Union Médicale*, June 23, 1885.

A CASE OF CHLOROMA.—DR. F. G. GADE, of Christiana, has had a case of the rare disease called chloroma, chlorosarcoma, green cancer, and periosteal and metastatic sarcoma, which was first described by Balfour, in 1834, and of which ten cases have already been recorded. Gade's case was in a little girl aged 5, who first suffered from anæmic symptoms, and then from a tumor of the left cheek, with toothache, tinnitus aurium, otorrhœa, deafness, and continually increasing exophthalmos. Nine weeks after these symptoms appeared, she died with pyrexia and great prostration, without having exhibited any phenomena of cerebral mischief. At the post-mortem examination, an immense number of greenish-yellow and greenish-gray fibrous tumors of sarcomatous structure were found in various situations, but more especially connected with the periosteum. They were found on the dura mater, in the internal ear, in the orbit, in the periosteum of the skull and facial bones, in large numbers on the sternum, on the ribs and vertebral column, also in the liver, kidneys, colon, lateral ligaments, and the medulla of the bones; also on the lower extremities there were a number of livid spots, the largest of which contained a butter-like substance. The case is very similar to those previously recorded, which were all in children. The green coloring matter, which can be dissolved out by maceration in chloroform as a dark-green oily liquid, is not related, according to Gade, agreeing with Otto, either to the blood or to the biliary coloring matter, but is formed from fat-granules, great numbers of which are found in the cells of the neoplasm.—*British Medical Journal*, July 11, 1885.

POWDER FOR PHAGEDENIC CHANCRE.—M. TERRILLON recommends the following powder as useful in phagedenic chancre:

℞.—Acid. pyrogallici . . . ℥v.
Pulv. amyli . . . . ℥iss.—M.

S.—Mix carefully.

In phagedenic anfractuous chancres, insufflate the powder into the depths of the sore. The dressing should be applied twice daily. The preparation employed should be fresh, and preserved from moisture in a well-corked bottle.—*L'Union Médicale*, July 4, 1885.

A CASE OF LACTOSURIA.—DR. GAUBE reports a case of lactosuria in a child aged fourteen days. The first five days after birth the child was fed on milk and water, owing to the slow establishment of the lacteal secretion in the mother. From the fifth day, the child fed regularly. The day succeeding birth it was seized with diarrhœa, accompanied at first with infrequent vomiting. Examination showed the milk of the mother to be excellent. The fecal discharges were acid, and composed of milk unchanged by intestinal digestion. The child, in the meantime, wasted. The urine on examination was found to have little color, no odor, and to be acid. Boiling produced no reaction. When added to boiling Fehling's solution, no precipitate appeared, but when boiled and added to the solution the characteristic precipitate occurred on cooling. Treated with the subnitrate of bismuth and caustic soda, and heated, it at first turned green, then yellow, and reduced the subnitrate of bismuth. Heating and testing with hydrochloric acid produced no change of color. Sufficient urine could not be obtained at one time to note the specific gravity. An average of two analyses gave about twenty-three grains of urea to the litre of urine, and the amount of urine passed in twenty-four hours was about four ounces. The urine contained no albumen, indican, nor oxalic acid.

As it is difficult to explain the formation of grape sugar in an infant entirely nourished with milk of a good quality, the conclusion was reached that lactosuria, not glycosuria, was the affection to which the symptoms were due.

The child, at the date of the report, when twenty-four days old, had improved in digestion, its weight increased; and the urine, which contained the same proportion of urea per litre, was neutral and reduced neither Fehling's solution nor bismuth.—*Gaz. Méd. de Paris*, June 6, 1885.

UNGUENT FOR THE TREATMENT OF METRITIS.—MARTINEAU recommends the following ointment in the treatment of metritis:

℞.—Potassii iodidi . . . . gr. lxxv.
Ext. belladonnæ,
Tr. benzoini . . . āā ℥ss.
Sodæ hyposulphit. . . . gr. viij.
Ol. amygdalæ dulc. . . . ℥ij.
Adepis benzoinat. . . . ℥vss.—M.

S.—Ft. unguent. Apply on wadding within the cervix.—*Revue de Thérapeutique*, July 1, 1885.

COCAINE BY INSUFFLATION AND INHALATION.—DR. SCHNITZER, recommends the following formula of cocaine for

A. Inhalation:

℞.—Cocaine hydroclor. . . xvj 16 to ℥ss.
Potassii chlorat. . . . . ℥ij.
Aquæ laurocerasi . . . . . f℥ss.
Aquæ dest. . . . . f℥xij.

B. Insufflation:

℞.—Cocaine hydrochlorat. . . gr. xij to xvj.
Morphiæ hydrochlorat. . . . gr. vj.
Bismuthi subnitrat.
Sacch. alb. . . . . āā ℥j.

—*Gazzetta degli Ospitali*, June 28, 1885.

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REGENERATION OF THE SPLEEN IN THE FOX AFTER TOTAL EXTIRPATION.—PROFESSOR ETERNOD, of Geneva, publishes (*Rev. Med. de la Suisse Romande*, January 15, 1885) an interesting account of his researches on this point. His results are confirmatory of Tizzoni's The chief point of interest was that, four months after the spleen had been entirely removed, a nodule of newly formed splenic tissue was found, enclosing in its substance foreign bodies that could only have been introduced through the wound at the time of operation. The nodule was 13 millimetres long and 8 broad; and apart from some embryonic tissue, in microscopic character it was almost identical with the normal spleen. Amongst the other conditions found, the most noteworthy were the new formation of adenoid tissue, especially in the lymphatic glands and Peyer's patches, and the transformation of the parenchyma of lymphatic glands into splenic tissue. This last circumstance supports the view held for some time by Professor Eternod, that the spleen is only a vast elaborated lymphatic gland.—*British Medical Journal*, July 4, 1885.

A CASE OF SUBACUTE OSTEOMYELITIS OF THE INFERIOR END OF THE FIBULA: OPERATION AND RECOVERY.—DR. GÉRARD MARCHANT reports a case of subacute osteomyelitis of the lower end of the fibula in which operation was successfully performed by PROFESSOR TRÉLAT.

After chloroformization and the application of Esmarch's bandage, an incision was made along the external face of the diseased bone. An interesting condition observed was the enlargement of the musculocutaneous nerve. The periosteum was not increased in thickness, but adhesion to the bone was slight. After removal of the periosteum the bone was found to be increased in all its diameters, thus filling up the interosseous space. Along with the increased size, general change in the characteristics of the bone existed. The canaliculi had disappeared, as also the details of configuration. In the region of the anterior four or five aperitres could be seen and felt. Examination further showed that from its condition the bone could be divided into two zones, an upper and a lower, corresponding respectively to the middle and its malleolar portions. The inferior zone was slightly united and violaceous, its Haversian canals enlarged and exhibiting at several points drops of dark blood. The superior zone was white, and duller, denser, and more compact, though possessing neither the brightness nor regularity of sound structure.

The boundary between the two portions was marked by an irregularly traced line, resembling a boundary line in a geographical map. These macroscopic lesions confirmed M. Trélat in the opinion that an osteitis existed, and he proceeded to remove the diseased tissue in the upper zone with the chisel and trephine. The lower zone next received attention, and the unhealthy bone removed. The marrow of this portion was found to be diseased, exhibiting in the midst of osseous trabeculæ, which were infiltrated with dark blood, small islands of a yellowish dark substance, about the size of an almond, irregularly outlined, with a *curette a lunette*. M. Trélat removed the diseased marrow for a distance of about two inches, until the diseased foci no longer were evident. The bone was also scraped until all the necrosed tissue was removed. In two months the wound was healed and the patient cured, the only complication ensuing being a suppurating lymphangitis. In slightly more than three months the patient was able to walk, and was radically cured.—*Le Progrès Medicale*, May 30, 1885.

A CASE OF MILKY HYDROCELE.—MR. SIDNEY DAVIES, in the *British Medical Journal* for June 20, 1885, reports the following case of milky hydrocele, obviously caused by the *filaria hominis*. He says:

A Greek, aged 23, consulted me in November last for a swelling of the left testicle. The swelling had the appearance of hydrocele, which disease is common in this country. Accordingly I tapped it, and drew off two ounces of milky fluid. This fluid coagulated on boiling, and, after standing a day, separated into a thick and thin portion; in fact, it had the ordinary properties of chyle. Under the microscope it was found to contain fat granules and granular leucocytes. Among the latter were seen moving three or four embryonic filariæ, of the same appearance and proportions as those I have frequently seen before in the blood of patients with chyluria.

The patient was born in Alexandria, and had lived there until four months previously to my seeing him, when he entered the Cairo police force. He noticed the swelling of the testicle nine months before consulting me. He had twice suffered from gonorrhœa, and had had a "soft sore," but no other disease. He had never had chyluria nor hæmaturia.

In three weeks after tapping the fluid returned, having the same appearance as before. After consulting with Dr. Grant Bey, I determined, by his advice, to open up the tunica vaginalis, and allow the sac to granulate from the bottom. I accordingly cut down into the chylocele, and exposed the testicle. The sac was washed with a 1 in 20 solution of carbolic acid, and a large drainage-tube inserted. The patient had an attack of hæmaturia, presumably from absorption of carbolic acid, which lasted two or three days. There was free suppuration, with rather severe inflammation of the coverings of the testicle round the wound; but the wound healed completely in three weeks after the operation. Up to this date there has been no return of the disease.

THE PATHOLOGICAL PHYSIOLOGY OF THE TESTICLE.—PROF. ANGELO MAFFUCCI has recently performed numerous experiments upon the results of wounds of the testicle, to determine the following questions:

1. How wounds of the testicle result under different methods of treatment.
2. Whether the parenchyma of the testicle is reproduced after in any way it is destroyed.
3. Whether the portion of parenchyma regenerated possesses functional power.
4. From what histological elements of the testicular parenchyma the regenerated tissue takes its origin.

After a thorough investigation of the questions above proposed, as made by careful experiments on dogs, Prof. Maffucci reaches the following conclusions:

1. Under antiseptic treatment the parenchyma of the testicle is regenerated.

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2. The regenerated epithelial tubules present phenomena of functional power.

3. The neoplastic parenchymatous tissue does not have its origin from old but from special cells of the stroma—with reservation for more exact observation.

4. The last proposition is a direct consequence of the preceding—*e. g.*, that there are special elements in the parenchyma of the testicle which have the power to renew it.—*Rivista Internazionale di Medicina e Chirurgia*, April, 1885.

GASTROTOMY.—The following case of removal of a foreign body from the stomach was reported in a recent sitting of the Dresden District Medical Society by Dr. Credé. A man aged 25, of delicate frame, came into his clinic after having swallowed, a fortnight previously, the whole set of teeth of his upper jaw. He had pushed the teeth down his throat because they were choking him, as he could not bring them up again. As they did not pass naturally, and signs of inflammation of the stomach became visible, Dr. Credé performed the operation. A diagonal cut 15 centimetres long was made below the ribs, the stomach was taken out, and opened by a cut seven centimetres long in the centre of its anterior aspect; the set of teeth was removed, and the rent in the stomach sewn up by three sutures, one above the other. The stomach was then replaced in its proper position. There was no inflammation, discharge, or pain of any kind. The second day after the operation, the patient received liquid nourishment, and after a fortnight solid food. In three weeks he was dismissed, and was able to resume his work. This is the second case in which a set of teeth that had been swallowed was removed by an operation, and the seventh in which gastrotomy was resorted to. The greater number of cases were successful. The first three cases were those in which a knife, a spoon, and a fork, respectively, had been swallowed.—*British Medical Journal*, July 4, 1885.

RARE FORM OF DISLOCATION OF THE SHOULDER.—A case of unusual dislocation of the humerus is described by Dr. K. E. Lindén, under the name of "luxatio humeri erecta," in the *Transactions of the Finland Medical Society*. The patient, a laboring man, aged 35, had been thrown down in a quarrel; and, while he lay on the ground, his opponent pulled his arm upwards, at the same time kicking him violently in the upper third of the left humerus. When Dr. Lindén saw the man, three days later, the humerus formed an angle of about 130 degrees with the acromion and clavicle; the forearm, which was pronated, lay horizontally over the head; the arm was much contused, and the seat of severe pain; while the hand which was supported by the right hand, was numb. All attempts at reduction caused much pain. The head of the humerus could be felt with unusual distinctness in the axilla, where it lay below and somewhat to the inner side of the glenoid cavity, resting against the lower border of the pectoralis major muscle. Reduction was effected, under chloroform, by making extension upwards and outwards. The arm was useless for six weeks; two and a half months after the injury, the man was able to walk, though his arm was still weak. Dr. Lindén has been able to find only five cases of this form of dislocation recorded in medical literature: two by Middledorpf, who first described it in 1858, and gave it the name of "luxatio humeri erecta;" one by Busch (1863); one by Nikolaysen (1873); and one by Alberti (1884). In all the cases, the arm was forcibly extended upwards when the displacement occurred. The symptoms in all resembled those described by Dr. Lindén as met with in his case: the head of the bone lay below the glenoid cavity, at the inner border of the scapula; the deltoid muscle was enlarged; the humerus was raised above the horizontal plane; and the forearm rested on the head, the hand being supported by that of the other arm. With regard to the difficulty of reduction, Dr. Lindén attributes it to the catching of the greater tuberosity of the humerus against the edge of the cavity of the joint.—*British Medical Journal*, July 4, 1885.

RETENTION OF URINE IN A CHILD OF SIX MONTHS.—M. ARNOZAN, in the *Journal de Médecine de Bordeaux*, reports the case of a child, six months of age, who suffered from retention of urine, The child had previously been healthy, and had had no difficulty in urinating, but when seen by M. Arnozan had not urinated for thirty-six hours. It cried and vomited. The bladder was found firm and full in the hypogastrium. The testicles were retracted. The penis and perineum presented no abnormal condition. Catheterization was performed without difficulty with a small elastic Charrière catheter, and urine, very dark but clear, to the amount of nearly four and a half fluidounces was drawn from the bladder. The child at once was relieved and went to sleep. Two or three days subsequently the urine became slightly purulent, and catheterization was continued for ten days, at the end of which time urination occurred spontaneously. Catheterization was required subsequently but once. The child since the attack has been in good health, but when suffering even from slight indisposition slight transient difficulty in micturition is manifested.—*L'Abeille Médicale*, June 29, 1885.

SCROTAL CALCULI.—DR. SCHKOTT has recently described, in a Russian medical periodical, the case of a patient, aged 27, who, when a child, was subject to some obscure disease of the scrotum, and noticed, later on, that he apparently had developed a third testicle, much harder than the two normal glands. For seven years before he came under Dr. Schkott's care in hospital, he frequently passed blood in his urine, and for two years micturition and coitus had been attended with pain. The third testicle reached the size of a goose's egg. Three months before admission he struck the scrotum, which inflamed and suppurated. The abscess burst, and left a fistulous track. On passing a probe into the track, three hard substances, which could be moved separately, were distinctly felt. On passing a catheter, a fistula was detected in the membranous part of the urethra. The scrotum was incised, and seven uric acid calculi were found in a capsule of connective tissue, fitting closely against each other. Dr. Schkott excised the sac after extracting the calculi, and closed the urethral fistula first with catgut, and then sutured the scrotal wound with the same material. The fistula opened up again, but was successfully closed by a second operation.—*British Medical Journal*, July 11, 1885.

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THE SCORBUTIC TAINT.

AMONG the improvements in health and comfort which are due to preventive medicine, none are better marked or more susceptible of demonstration than those resulting from the prevention of scurvy. It is true that it is somewhat difficult to realize the extent to which a century or more ago, this disease or dyscrasia affected the people, in a mild form complicating all other diseases, and in its graver aspects producing epidemics, and destroying the efficiency of navies and armies.

Some idea of the prevalence of the scorbutic taint in those days may be gained from the records of medical practice in the seventeenth, and first half of the eighteenth centuries, in which the occurrence of symptoms referable to this complication is frequently noted.

It is true that in those times the terms scurvy and scorbutic symptoms were often used vaguely and as a cover for ignorance, very much as the term malaria is sometimes employed at present, but it is evident that the physician of 1600 saw so much of this disease, that he suspected its presence as a complication in a large proportion of the cases which he was called upon to treat. As an example of this, take the little book entitled "Select Observations on English bodies; or cures both empericall and historicall performed on very eminent persons in desperate diseases." Written by John Hall in the beginning of the seventeenth century.

John Hall was the son-in-law of Shakespeare, and lived at Stratford-on-Avon, where, in the words of his translator "he was very famous, as also in the counties adjacent." His little book, containing the record of nearly two hundred cases, was first published in 1657 by Dr. James Cooke, and is somewhat rare, being sought for by collectors of Shakespeariana. In the preface the editor says, "It seems the author had the happinesse (if I may so stile it) to lead the way to that practice almost generally used by the most knowing, of mixing scorbutics in most remedies," and scurvy grass figures in many of his prescriptions.

At the present time and in this country fully developed scurvy is so rare that many physicians have never seen a case which they have recognized as such, and do not suspect its presence even when it would be well that they should do so. It must be remembered that the causes which produced scurvy two hundred years ago are still efficient, and that those who, either from choice or from necessity, use salted meats too exclusively and do not use sufficient vegetables, are liable to suffer from these causes.

Fortunately, in such cases there soon arises a special craving for fresh vegetables and vegetable acids, but this is not always the case, and within the last three years we have seen several cases in people in comfortable circumstances in which the scorbutic taint was apparent when attention was directed to it, although it was not at first recognized, and the cases were considered to be rheumatic, malarial, dyspeptic, etc. In two of these cases the gums were decidedly spongy, and there were well-marked vibices on the front of the tibia, and in all of them attention to diet and the free use of lemons produced rapid improvement. It may be well, therefore, to bear in mind the possibilities of this complication, especially when prescribing a course of diet and regimen which is to be followed for a considerable period.

PNEUMONIA COCCUS IN THE AIR.

IN the course of some experiments on microörganisms in the air, PAWLOWSKY, of the St. Petersburg Pathological Laboratory, found on the exposed gelatine plates a culture which, in macroscopic characters, resembled closely those of Friedländer's micrococcus of pneumonia, and, on microscopical examination, proved to be composed of diplococci, some of which presented capsules. There had been cases of pneumonia among the laboratory servants, and this strengthened the supposition that these were pathological organisms. Two white rats were injected with these cultures, and death followed in twenty-four hours. There were pleurisy and hyperæmia of the right lung, and the organ sank in water. The diplococci were found in the exudate and in the lung. Cultures made from them seemed characteristic in the nail-form of the growth; but there were, in addition to Friedländer's large micrococci, smaller ones which it was found impossible to isolate. Further inoculations were made in two rabbits, one guinea-pig, and three dogs. In the rabbits there were fibrinous pleu-

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risy and croupous pneumonia of the entire lobe of the right lung. In the guinea-pig there was a hemorrhage in the lung surrounded by a zone of grayish tissue, while in the dogs there were fibrinous pleurisy and many foci of gray, solid, airless tissue, in which the alveoli were filled with fibrin and colorless blood-corpuscles. The diplococci were most numerous in the rats.

It is not a little peculiar that servants with croupous pneumonia should contaminate the exposed gelatine plate; we can scarcely suppose they were in the laboratory during the existence of the disease, but the details on this point are rather meagre. The author refers to several features of interest in connection with the organism which has been found associated with pneumonia. Morphologically and physiologically great differences exist in the diplococcus described by different writers. The capsule which Friedländer believed to be specific, has not been found by many other observers. Salvioli describes the coccus as motile. Some have described a large diplococcus, others a small; and again, the results are different. Talamon and others have not been able to cause the pneumonia in dogs, which the author and Lebedinsky have successfully induced. In rabbits negative results followed the experiments of Friedländer; positive, those of Talamon and others. The author concludes that the organism with which he was dealing corresponded in form, mode of growth, and in the effects produced, with Friedländer's coccus of pneumonia. The smaller diplococcus which existed in the cultures was not thought to vitiate the results—indeed, Afanassiew has found both forms in pneumonic sputum.

THE SURGERY OF CYSTS OF THE PANCREAS.

THE *American Journal of the Medical Sciences* for April contains an exhaustive paper, by DR. SENN, of Milwaukee, on the "Surgical Treatment of Cysts of the Pancreas," an affection which, for obvious reasons, is not only extremely difficult of diagnosis, but rarely comes under the domain of the surgeon.

In his own case, that of a young man nineteen years of age, a cyst, containing three quarts of fluid, had developed in five weeks, as the result of a severe fall and blow, through which it was assumed that the pancreatic duct had been lacerated, that the pancreatic fluid infiltrated the gland, and that the cyst formed at the expense of its parenchyma and by distention of its capsule. For the first two weeks after the injury, diarrhœa and vomiting were prominent symptoms, and were followed by the appearance of a round, smooth, fluctuating, and painless tumor, which, on admission to the hospital, was found to occupy nearly the whole epigastric and the entire left hypochondriac region. The cyst was exposed by an oblique incision, five inches in length, made through the abdominal wall over its most prominent portion; the omentum, covering and slightly adherent to the cyst, was opened by an incision three inches long; the fluid was evacuated by cutting into the sac, and the edges of the incision were united to the parietal peritoneum, which had previously been stitched to the skin. Two large drainage-tubes were inserted, antiseptic dressings were applied, and the cure was complete in eight weeks.

The case of Dr. Senn is the sixth on record in which cysts of the pancreas have been subjected to operative interference. In 1881, Rokitansky attempted extirpation of the sac, but this was rendered impossible by the firm and numerous adhesions, and death ensued from purulent peritonitis. Nine months subsequently, Bozeman successfully removed a cyst, which, with its contents, weighed twenty-one pounds and a half. In the remaining four cases, in the hands, respectively, of Kulenkampff, Gussenbauer, Thiersch, and Senn, pancreatotomy was performed, and all of the patients recovered, one having a permanent fistula. From the deep situation of the pancreas, the shortness or absence of a pedicle, and the anatomical relations of the organ, extirpation is of doubtful propriety, while antiseptic incision appears to be a safe and efficient procedure, although it may subject the patient to the annoyance of a persistent fistula.

THE TITLE OF DOCTOR.

IN the *Medical Times and Gazette* for July 4 will be found described a scene at a medical book-club dinner in England, wherein the *dramatis personæ* are Stavesacre, a brand-new Brussels M. D., Cowhage, a M. R. C. S., L. S. A., and Broom, an M. D., Cantab. Stavesacre, who had previously been a licensed practitioner, but not an M.D., had yielded to the pressure of various kinds which has resulted of late years in a passion on the part of certain English practitioners for a right to use the doctor's title rather than that of Mr., had "run over" to Brussels and secured the M.D.,—after how long residence is not stated. The conversation is upon this event in the life of Stavesacre, who admits that his old diplomas were as good as half the M.D.'s about, but "the public somehow thinks otherwise." Further, according to Stavesacre, it is less "shoppy;" "a plain Mr. on a doorplate may be a piano-tuner for all the world knows," and "besides it is very convenient to be called doctor."

Broom, the Cambridge doctor, who has won his title by hard work, thinks on the other hand that the "Dr." is the more shoppy title; and that you can never shake it off. He detests advertising his business, and having always the look of "touting" for patients. Besides, the more one respects the title

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of "Dr." and what it ought to imply, the more one hesitates as to one's worthiness of it.

Cowhage complains of the M.D. as a "conventional and accidental standard of superiority." A young man, whose father happens to have more money than another's, is sent to a school where he can get a title, and may not be a whit more worthy to be called Dr. than half a dozen others. "It is monstrously unfair," says Cowhage.

But Broom again charges his friends with wrangling about the shells and letting the oysters drop. Those patients that choose the doctor by his doorplate are infinitesimally few, and little worth having. The best patients are those who judge the pudding by the taste, and not by the elegance of its recipe, who come to you because of the good report their friends give of you, and not because of any university *imprimatur*. "No," he says, "let us stand on our own bottom, and despise such fortuitous and rickety elevations as diplomas and degrees. If we work so as to win confidence in our own efficiency, throwing off all pretence to be what we are not, why then we shall earn, not perhaps fame and fortune, but our own and others respect, which, considering all things, is the best reward that a poor practitioner can look for."

To any one who, without prejudice, examines all sides of this question, it is evident there is some truth in what each one of these medical men says. But it seems to us plain, also, that the Cambridge doctor has the best of the argument, and that he who follows the line of motive laid down by him will not only be the happier man, but ultimately the more successful physician in every sense of the word.

We desire, particularly at this time, to call the attention of our British cousins to this matter and these facts, because our own country is again becoming the focus towards which foreigners are turning their attention with a view to obtaining the title of doctor. Few as yet have forgotten the smirching which the American degree received some years ago by the wholesale issue of bogus diplomas on this side of the Atlantic, diplomas which were boldly sold in England and Scotland, in France, Germany, and Italy. We are in a position to know that many of these diplomas were bought by foreigners in good faith—that is, they thought they were obtaining them from respectable institutions.

Recently, we say, there is again a disposition to look to America for easily obtained doctors' titles. Many of these applications come from honest intentioned men, some of whom are willing to pass an examination, but few are willing to attend the single course of instruction which is alone required by the colleges of this country to make the regularly licensed practitioner of Great Britain eligible to examination for the degree. Unfortunately, too, we note that two or three American colleges which lay claim to respectability, are bidding, as it were, for candidates of this kind by advertising their short courses in the English journals, and we are aware of at least one instance in which a degree was conferred by one of our western colleges upon an English licentiate without attendance, but on examination only. Let them beware. They are treading upon dangerous ground.

INCEST AND IDIOCY.

THE results of recent investigation only go to confirm those of a less modern date in showing that the history of Œdipus Coloneus does not represent the type of the offspring of incestuous marriages. Œdipus, one of the most unfortunate of mortals, who unwittingly slew his father, and became partner of his own mother's bed, had sons and daughters who were perfect in intellect and in body. One of the daughters, indeed, must be regarded as showing a nobleness of character and life, and a loftiness and heroic resoluteness of purpose almost unequalled by any woman of ancient or modern times. As Penelope stands forth the Greek type of wifely love and fidelity, so does Antigone represent a daughter's fearless devotion to her unhappy father, and a sister's to a brother.

But according to Legrand du Saulle's recent investigations, as published in the *Journal D'Accouchements* of June 30th, the children of incest are peculiarly liable to mental or physical defect, or to disease. He gives seven illustrations, five of which we will briefly state.

A girl nineteen years of age had been the mistress of her father for three years, and by him she had three children, two of whom died early from convulsions, while the third had clubfoot.

A girl sixteen years of age, was deflowered at thirteen by a brother; this brother left to become a soldier, and she then had sexual intercourse with a younger brother, seventeen years old, and from this relation she gave birth to an idiot child.

A woman thirty-three years of age, insisted upon being the mistress of her son, who was nineteen years old; the offspring of this unnatural association was an idiot.

In another instance a woman thirty-nine years old, but still beautiful and of high social position, had a son nineteen years old, whom she regarded as an Apollo. She became his mistress, and gave birth to a child that died of convulsions in the third year.

A father debauched his daughter of fifteen years; he found her pregnant after a time, and hung himself; four months after his suicide, she gave birth to a child which lived and was an idiot.

These facts are of very great interest in mental pathology, and they likewise have their moral lesson. They tell us that there are laws which cannot be violated with impunity, and that the vengeance falls

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upon the offspring of incestuous relations, the sins of the fathers and mothers visited upon the children. The Eumenides of Greek tragedy no longer walk the earth; they were the dark shadows of eternal, immutable, omnipotent law which is now recognized, but not yet fully comprehended.

HYDATID DISEASE AT THE PATHOLOGICAL SOCIETY.

IT is a rare event at any Society to have such an exhibit of cases of hydatid disease as that at the Pathological Society of Philadelphia at its last meeting, on June 25th. In the first place, Prof. Osler exhibited, under the microscope, hydatids found in the urine of a case of hydatid disease of the kidney, the cysts from which are passed periodically and coincidently with symptoms of nephritic colic and a sense of fulness in the region of the kidney. It is believed that this is the only case of hydatid disease of the kidney which has ever been reported as occurring in American practice.

Next, Dr. Longstreth exhibited six specimens of hydatid disease, all of unusual interest. The first was one of hydatid cyst of the liver, with resulting obstruction of the common bile-duct, associated, during life, with attacks of biliary colic of so peculiar a character that it was at least concluded that they were not due to gall stones. The second was a case of hydatid disease of the liver, with hydatid cyst of the pelvis, which during life pushed up the bladder in such a way that its cavity could not be reached by the longest catheter in use. The third and fourth were also cases of hydatids of the liver. The fifth and sixth were instances of hydatid disease of the brain, in one of which the cyst, probably half an inch in diameter, lay in the longitudinal fissure. The other was a brain in which were two hydatid cysts.

A very interesting fact in connection with these specimens, all of which belong to the Museum of the Pennsylvania Hospital, is that five out of the six were from foreigners, two being Frenchmen, two Italians, one a Portuguese, and one a colored woman. The question of the possible occurrence of this form of disease in native-born Americans was, however, settled by the fact that the patient from whom Dr. Osler's specimen came, although an Englishman, had lived thirty-five years in America; and one of Dr. Longstreth's was a colored woman, native to the country.

The undoubted rarity of the disease on this side of the Atlantic, well shown by Prof. Osler's statistics, published in the *American Journal of the Medical Sciences* for October, 1882, can only be ascribed to the less intimate relation of our people with dogs, which are the natural habitat of the tænia echinococcus, the parent of the echinococcus cyst. It is interesting, also, to note that two of the Frenchmen were dog fanciers, one having been in the habit of biting off the ears and tails of dogs he was raising.

THE NON-INJURIOUS EFFECT OF ANTIPYRINE IN PREGNANCY.

CHIARA, *Annali di Ostetricia*, gave to a woman in the ninth month of pregnancy, who was attacked with pneumonia, antipyrine. A remarkable reduction of temperature followed, but premature labor came on.

The question naturally arose as to whether the antipyrine brought on labor, and, to settle the matter as to whether this medicine has any oxytocic power, he gave sixty grains of it, in divided doses, to twelve pregnant women, seven of them not yet in the ninth month; the others near the period of labor. In none was any injurious result observed, the pregnancy being undisturbed. So far, therefore, from attributing any unfavorable influence to antipyrine given in pregnancy, Chiara regards it as having a favorable influence, for, by the reduction of temperature it effects, the occurrence of premature labor, of which pyrexia is so frequently the cause, is prevented.

REVIEWS.

A SYSTEM OF MEDICINE, BY AMERICAN AUTHORS. Edited by WILLIAM PEPPER, M.D., LL.D., Provost and Professor of Medicine and Clinical Medicine in the University of Pennsylvania; assisted by Louis Starr, M.D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania. Volume II. Pp. 1312. Philadelphia: Lea Brothers & Co., 1885.

THE second volume of this great work has been issued promptly and fully bears out the promise of the first. The general diseases are brought to a conclusion and the remainder of the volume is occupied with "Diseases of the Digestive System." Thirty-eight articles are contributed by twenty-two authors against thirty-two by twenty-one authors in volume one. It is to be hoped that the increase in bulk will not be progressive as the work goes on; the limit of convenience as regards size has been reached.

The volume opens with an able and carefully prepared consideration of rheumatism and rheumatoid affections, from the pen of Dr. R. Palmer Howard, of Montreal. Gout, by Dr. W. H. Draper, of New York, follows naturally. We should like to have had from the author a more positive expression of opinion as to the prevalence of the disease in this country. Rachitis, by Dr. Jacobi, of New York, and Scurvy, by Dr. Wales, are exhaustive articles by men of extensive experience and wide reading. Dr. Tyson, of Philadelphia, writes upon Diabetes, a disease with which his name has long been associated as a worker in its clinical and pathological aspects. Dr. Lynch, of Baltimore, writes the article on Scrofula. It is a pity that the numerous recent researches which go far to show the identity of tuberculosis and scrofulous affections, could not have been

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incorporated. Hereditary Syphilis is considered by Dr. J. William White, in an elaborate and critical article of over sixty pages.

The Diseases of the Digestive System occupy the remainder of the volume. The editor might have cut down with advantage the articles on the orifices, so fully dealt with in the surgical systems; fifty-six pages on the Mouth and Tongue, by Dr. Cohen, of Philadelphia, and forty-three on Anus and Rectum, by Dr. T. G. Morton, and Dr. H. M. Wetherill, of Philadelphia. Dr. Cohen also writes the Sections on Diseases of the Pharynx and Œsophagus; and it is superfluous to say that they are well written. The articles on Functional and Inflammatory Affections of the Stomach are from the pen of Dr. Armor, of Brooklyn. The other diseases of the stomach—ulcer, cancer, etc., are considered by Professor W. H. Welch, of Johns Hopkins University, in a series of papers which exhaust the subjects and will be for many years to come the standard work of reference on these important topics. The articles on Diseases of the Intestines occupy over three hundred pages, and are contributed by W. W. Johnston, of Washington; J. T. Whittaker, of Cincinnati; J. Lewis Smith, of New York; Philip S. Wales, of Washington; Hunter McGuire, of Richmond; Joseph Leidy, and I. Edmondson Atkinson, of Baltimore. Dr. Bartholow takes the entire subject of Diseases of the Liver. The Assistant Editor, Dr. Starr, deals with the Diseases of the Pancreas. Dr. Alonzo Clark, of New York, contributes the article on Peritonitis; no one else in the country could have done it so well, or so appropriately, as the man to whom we owe the opium treatment of the disease. The volume concludes with an article on Tabes Mesenterica, by Dr. Busey, of Washington.

An extraordinary index accompanies the volume; one hundred and eighteen pages! bewildering in its fulness, and much of it superfluous.

The third volume, we understand, will be ready by the first of October, and the work will be completed early next year.

MATERIA MEDICA AND THERAPEUTICS; AN INTRODUCTION TO THE RATIONAL TREATMENT OF DISEASE. By J. MITCHELL BRUCE, M.A. Aberd., M.D. Lond.; Fellow of the Royal College of Physicians; Physician and Lecturer on Materia Medica and Therapeutics, Charing Cross Hospital; Assistant Physician to the Hospital for Consumption, Brompton. 16mo. pp. 547. Philadelphia: Henry C. Lea's Son & Co., 1884.

THIS volume is another of the excellent series of student's manuals, and is so full of information that the first year's student is charitably advised to confine his attention to the materia medica proper, and under the action and uses of the drugs, to read only those portions printed in thick type. As stated in the preface, it is therapeutical in its scope, and intended to be a rational guide to the student and practitioner of medicine in the treatment of disease. The antiquated method of classifying medicines in accordance with their effect upon the human system, is discarded in favor of a natural arrangement, in which articles of the inorganic materia medica are comprised in groups of metals, acids, alkalies, and so forth; whilst the two divisions of drugs from the vegetable and from the animal kingdoms, constitute the organic materia medica. The author attaches importance to his plan of systematically tracing the physiological action and uses of the different drugs in their passage through the body, from their first contact with it locally, until they are eliminated in the various secretions. He urges that his innovation of discussing the action and uses of remedies under the heads of the physiological systems of the body such as the digestive, the respiratory, etc., aids in conducting the pupil from facts with which he is familiar to the great principles of treatment. Whilst the value of this volume to American students will be somewhat diminished by the fact that it is intended chiefly as a commentary upon medicines officinal in the *British Pharmacopœia*, we can cordially recommend it to those of our readers who desire to be fully informed upon the opinions held abroad as well as at home, in regard to the many unsettled problems of therapeutics.

SOCIETY PROCEEDINGS.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Stated Meeting June 25, 1885.

THE PRESIDENT, E. O. SHAKESPEARE, M.D., IN THE CHAIR.

DR. WM. OSLER exhibited for DR. MCLAREN, of Paisley, Ontario, some specimens, which he had sent him, of

HYDATIDS PASSED WITH THE URINE,

with the following history, dated April 13, 1885. The patient, Geo. S., aged 58, an Englishman, resident of Ontario for thirty-five years, at present a farmer, but formerly a butcher for fifteen years. Always enjoyed good health until about four years ago, when he had a severe attack of nephritic colic on the right side, lasting only a short time and quickly relieved. Had no further trouble until two years afterwards, when a similar attack occurred, confining him to bed for several weeks; some days he was better, but always worse on exertion. After a period of improvement for several weeks, during which time he was able to attend to his farm duties, he felt pain and uneasiness over the right kidney followed in a day or two by pain at the point of the penis, which continued for several hours and was relieved by the passage of gelatinous-looking masses in the urine. These bodies—hydatid—he has continued to pass at intervals of from two to four weeks. The discharge is always preceded by an uncomfortable feeling of fulness in the region of the kidney and pain or uneasy sensations at the penis. No tumor has at any time been discovered in the neighborhood of the kidney. With the exception of these attacks of pain and distress in the urinary organs, prior to the discharge of the hydatids, he enjoys good health. He lost no weight; appetite good; bowels regular.

The specimens, which were given to me for examination by Dr. Palmer Howard, of Montreal, consisted of ten or a dozen hydatid cysts, ranging in size from a pea to a grape, and contained in a small quantity of urine. They were evidently the daughter-cysts of a larger one which was in communication with the urinary

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passages. Several of the cysts contained smaller ones (granddaughter-cysts). On examination of a drop of the urine in which they were, numerous hydatids and the characteristic hooklets could be seen.

Echinococcus of the kidney or urinary passages is very uncommon. Statistics show that the left organ is more frequently affected than the right. The points of interest in this case are: the long duration, the absence of evident tumor, and the excellent condition of the patient. Here is evidently a cyst of considerable size, possibly in the right kidney, and which bursts at times into the pelvis with the discharge of the hydatids.

In 1882 Dr. Osler reviewed the literature of American cases of echinococcus disease, and made inquiries of the curators of the principal museums, the result of which was the collection of sixty-one instances of the disease (*American Journal of the Medical Sciences*, October, 1882, page 475). In not one of these was the cyst in the kidney. Since that date six other cases have been reported, viz.: by Carson (cyst of liver), *St. Louis Courier of Medicine*, 1884; Schæffer (liver), *Trans. Med. Soc. of State of Pennsylvania*, 1884; Wier (liver and mesentery), *New York Med. Journal*, 1885; Helm (cyst of liver, ruptured into intestine), *New England Med. Journal*, 1883-4; Welch (spleen), THE MEDICAL NEWS, Jan. 19, 1884, page 80.

DR. MORRIS LONGSTRETH then exhibited a series of six specimens of echinococci situated in various organs.

CORRESPONDENCE.

LANGEN-SCHWALBACH AS A HEALTH RESORT.

To the Editor of THE MEDICAL NEWS.

SIR: The name Schwalbach was formerly Schwalbenbach (Swallowbrook), and according to folks-lore is derived from the charming legend of a maiden whose life was saved by a young swallow, to which she had been kind, and which, with other swallows, brought her in nutshells water from a spring, the virtue of which the swallow had discovered when herself ill. The future husband of the young girl, in gratitude, built a house for the sick about the marvellous spring. The latter became famous. A town arose, and to this day its coat of arms is a swallow and a brook.

In order to reach Schwalbach (or Langen-Schwalbach) the visitor may go directly to Mayence from Paris, then to Wiesbaden, and thence drive in a carriage or go by an uncomfortable diligence. Or the route may be taken *via* Ostend, rail to Cologne (ten hours), and boat to Coblenz. Pass the night (a superb bit of Rhine scenery here) and go on next day by train to Eltville. The express boats do not stop at Eltville. The other boats are too slow. From this place take a carriage (ordered beforehand from Schwalbach by telegram). The way lies through Schlangenbad, another bathing resort to which many patients are sent for baths before taking the cure at Schwalbach. The waters at Schlangenbad are "*indifferent*," that is, they possess no especial chemical or mineral properties, but when warmed seem to exert a soothing influence and thus prepare "nervous" or hysterical patients for the powerful waters of Schwalbach, the effect of which is very decided. I do not deem it necessary to spend any time at Schlangenbad (forty-five minutes from Schwalbach by carriage), but if patients are directed to do so, and especially if sensitive, they should not remain long, nor go out of doors after 5 P. M., except on very warm days, for the place lies in a deep valley, entirely shut in by hills very thickly wooded. The consequence is an atmosphere of extreme dampness.

Schwalbach lies upon three gentle hills, deep in a valley, formed by mountains of a moderate height, whose summits are crowned by superb forests. The springs lie 900 feet above sea-level. The air is pure and refreshing, and the temperature rarely exceeds 15° R. (65¾° F.) during the summer. The climate is healthful. Epidemics are unknown here, and there has never been recorded a single case of cholera. The average duration of the cure is six weeks, and I would advise patients to reach Schwalbach, at the latest, by the middle of June or the first of July. After the middle of August rains are frequent, and in the valley the dampness naturally soon becomes disagreeable to the delicate. Hotels are numerous, the best one being the Alleé-Saal, kept by Mr. Ernst Grebert, who is also banker for American letters of credit. It would be well to write him in advance, in order to secure sunny rooms. As a dependance he has a beautiful villa, which is very convenient for families. He will send breakfast and supper to the villa, but expects his guests to come to the hotel for the one o'clock dinner. There are also many pensions and furnished apartments which afford a more economical manner of living. The walks and drives about the place and vicinity are very charming, as are also, especially, the grounds of the bathing establishment. There is an excellent orchestra which gives three concerts daily. The Casino, a fine building belonging to the establishment, is the rendezvous in the evening. Here, concerts, balls, and various entertainments are given, and it includes a spacious reading-room in which may be found daily papers from every country. Circulating libraries are plentiful. The shops are very good.

Schwalbach is a quaint old town, straggling down the valley from the bathing section, which is very pretty and well arranged. For the privileges of the place, visitors, who remain longer than one week, are obliged to pay ten marks or two and one-half dollars. There are several springs which are used medicinally; only two need be mentioned. If one of the others is indicated, the resident physicians, Grebert (brother of the proprietor of the hotel, and a very skilful and agreeable gentleman), Genth, and Frickhoeffer, will give the proper directions.

The two springs at Schwalbach which are in common use are the Weinbrunnen and the Stahlbrunnen. Of these the former probably is sufficient for the majority of patients. As will be seen by the following analysis.

	Free carbonic acid in one pound of water.	Bicarb. of protox. iron in one pound	Bicarb. salts.
	Cubic inches.	Grains.	Grains.
Stahlbrunnen .	50.27	0.643	4.660
Weinbrunnen .	45.6	0.443	11.967

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In this analysis I give merely the active ingredients, the Stahlbrunnen is richer in free carbonic acid and iron salts and consequently too strong for many persons:

There are but three known springs which contain more iron than the Stahlbrunnen. As to the proportion of carbonic acid gas, the latter is the most powerful of all known iron springs. The effects of the iron and carbonic acid gas are too stimulating to be borne with impunity by very delicate patients until toleration has been established. And here it should be said, that American women cannot bear the strength of water which seems to agree perfectly with the Germans. Patients should, therefore, be advised not to begin with the degree of strength of drinking water, nor remain in the baths for the length of time, which will probably be recommended by the resident physician. Moreover, the temperature of the bath at first should be warmer than is the rule.

I had the fortune to be able to watch the effects of these waters upon twelve or fifteen patients, who were under my immediate supervision. Two of them were so powerfully affected, even by diluted drinking-water and weak baths, that it became necessary for them to abandon both. This, however, is exceptional.

The Schwalbach waters are extremely beneficial in the cases for which they are indicated. Notwithstanding the relatively small proportion of iron, anæmia is often very rapidly relieved by the drinking water, which is quickly digested and assimilated. The large proportion of carbonic acid gas renders the water very stimulating, whether used internally or externally. The appetite is rapidly restored, the color returns to the face, the general strength increases daily, morbidness vanishes, the mind becomes tranquillized, chill and tendency to "take cold" disappear. In many cases this improvement is surprisingly rapid and the cure becomes what the Germans are fond of terming "brilliant." The cure is carefully systemized, the water being drunk, and the baths taken, at certain fixed hours.

Patients begin with the Weinbrunnen and after a stated period of three to four weeks, some are ordered to change to the Stahlbrunnen, but, as already remarked, the Weinbrunnen is sufficiently strong for Americans. A patient brings her glass and drinking tube (I say her, for the patients are nearly all ladies), takes them to the Weinbrunnen which flows into stone tanks beneath a pretty, open building, or rather a roof supported by posts, and there the women who dispense the water attach to the glass a number which the patient must bear in mind. At first only one-half the glassful should be taken, the quantity being gradually increased as directed by the physician. Everybody walks while slowly drinking through the tube, and the sight of scores of persons imbibing the water during a promenade is very comical. The drinking is repeated once or twice during the day. Diet is carefully regulated, especially salad and fruit being strictly forbidden.

The baths are conveniently arranged in a long two-story building which contains ninety-three chambers. Bath tickets (none being required for drinking) are bought by the package, and the name and hour of each patient are carefully recorded so that at the hour the bath is always in readiness. A steam whistle upon the bath-house is blown every hour, thus giving notice to those who bathe at that hour. The water is heated by steam, which is turned on a few minutes before the bath is taken, the attendant regulating the temperature with care according to the directions of the physician, who will suggest 25° or 26° R., or 88° or 90° F. This, I believe, is not sufficiently warm for the first bath, 29½° R. being only blood-heat. The temperature may gradually be lowered in later baths. The patient sits upon a wooden stool weighted with lead. A cover is put upon the tub to preserve the carbonic acid gas, to protect the lungs of the patient, and to avoid loss of heat. The local physician will direct the patient to remain in the first bath ten minutes and gradually to increase the duration of subsequent baths to twenty minutes. None of my patients, all of whom were Americans, could endure this length of stay without distress and not one of them was allowed, even in the later baths, to exceed eight minutes.

German women seem to be made of different material. They can drink more water and remain in the bath far longer than our countrywomen. A heated linen sheet and towels are provided for drying purposes after the bath and if requested the attendant will dry the patient. Very delicate invalids should not at first use water of full strength either for bathing or drinking. In the bath-houses are special chambers for the diluted bath and near the spring is a jar filled with ordinary water for the purpose of weakening the iron water. The baths are now so arranged that the water will not stain the clothing, as it formerly did, with iron rust. After the bath the patient goes to her lodging and rests upon the bed for at least one hour,

At first the effect of the bath is enervating, notwithstanding that for two hours after leaving the bath the skin is in a condition of great stimulation. Perspiration is common but disappears within an hour. The carbonic acid gas bubbles constantly during the bath and acts as a rubefacient. In case of weak heart the gas is frequently oppressive and gives the patient a sensation of weight upon the chest. Such cases should begin gently with diluted water, remaining in the bath only four or five minutes.

In order to meet the probable objection of the physician that such care is unnecessary, the patient should be furnished with a written request to this effect from her personal physician. One of my patients was the victim of a serious mitral affection, but by gentle and careful use of the water at first, she slowly advanced to water of full strength and was greatly helped by her stay in Schwalbach. It is sometimes the case that the water causes headache, vertigo, flushing of the face, and these sensations are experienced especially after a full meal. If the patient lie down the distress increases, while a short walk in the shade generally overcomes it. This effect of the water is not common. If toward the end of the cure these symptoms appear for the first time, it is an indication that the baths should be less frequent or discontinued. Constipation is rather frequent, and is regulated by the use of Hunyadi Janos or Friederichshall water. Exercise is urged upon all patients, and the daily promenade or donkey ride is gradually lengthened. No patient should bathe before breakfast. Many foreigners do this, but for American women it is unwise.

The cases which are benefited by the Schwalbach

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waters may be briefly enumerated as follows: Anæmia; loss of nerve power: general muscular debility, including muscular tissue of the intestinal canal; chronic uterine catarrh; abortion; chlorosis; menorrhagia; relaxation and imperfect development of the uterus; prolapsus; sterility; dysmenorrhæa; metritis and all kindred affections; hysteria; hysterical paralysis; hyperæsthesia, and other similar nervous ailments.

The Schwalbach waters are not sufficiently known, nor are they prescribed by American physicians as frequently as they deserve. Their great value in the treatment of the nervous disorders which are so common among American women needs no further suggestion. The details I have given will I trust render it easy to send patients to these springs and likewise enable physicians to supply them with all necessary information. Living costs from $1.75 to $3.00 per day, according to circumstances. The expense of the baths is about fifty cents each.

HAMILTON OSGOOD, M.D.

THE DISINFECTION OF RAGS.

THE issue of the *New York Times* of July 7th, contained an article headed "Disinfection Unnecessary—Conclusions of the International Sanitary Conference of Rome." The author of this article, taking a report in the *British Medical Journal* as his authority, ventures to assume that the correspondent of the Philadelphia MEDICAL NEWS has "interpolated" a paragraph in his report upon disinfection. He says: "This paragraph appears in another form in a letter to a Philadelphia paper, written from Rome under date of June 3. The portion in parentheses is supposed to have been interpolated by the writer of the letter on his personal responsibility. The language used is as follows: 'Disinfection of merchandise and of the mails is unnecessary. (Steam under pressure is the only reliable agent for disinfection of rags—*les chiffons en gros.*)'"

In a letter published in *The Times* of July 11th, the subscriber officially denied that the correspondent of THE MEDICAL NEWS had interpolated the paragraph in parentheses, in the following language:

"This inference as to an unjustifiable interpolation is entirely without foundation. The report of the Committee on Disinfectants is correctly given by the correspondent of the Philadelphia journal referred to. The writer was a member of the Committee on Disinfectants which was constituted as follows: Sternberg, United States; Koch, Germany; Proust, France; Eck, Russia; Thorne-Thorne, England; Hoffmann, Austria; Semmola, Italy. There was no opposition to the paragraph relating to the disinfection of rags, either in the committee or in the Conference."

In *The Times*, of July 22d, there is a second article, not signed, in which the assertion is made that a gentleman *interested in the importation of rags* has received a cablegram from Dr. Robert Koch to the effect that the paragraph referrring to the disinfection of rags does not appear in the report of the Committee. This has been copied in the *New York Medical Journal*, and it becomes necessary for the delegate from the United States to defend himself from the charge of having added to the official record of the Committee on Disinfectants, of which he was a member.

Either Dr. Koch is mistaken, or he has been misrepresented by the gentleman *interested in the importation of rags*, for the official record of the proceedings of the Conference contains the paragraph in parentheses which, it is alleged, has been "interpolated" by the correspondent of THE MEDICAL NEWS, upon his "personal responsibility."

Attached to this note is a copy of the report of the Committee on Disinfectants of the International Sanitary Conference of Rome; also a copy of the translation given by the correspondent of THE MEDICAL NEWS.[1] The writer submits that Article V., which contains the paragraph alleged to have been "interpolated," has been correctly translated by the correspondent of THE MEDICAL NEWS, and correctly quoted by the writer in his letter to *The Times* (July 11th.)

The printed copy of the report accompanying this circular was distributed to the members of the International Sanitary Conference at the Session of June 2d. It corresponds with the *official record* as given in *Procès Verbal*, No. 10, page 3; and in the *Relevé des Conclusions Adoptées*, page 16.

The truth of this statement may be verified by referring to the printed copies of the proceedings brought by the subscriber from Rome, and now on file in the office of the Hon. Secretary of State, and of the Surgeon-General U. S. Army.

GEO. W. STERNBERG,
Major and Surgeon, U.S.A.,
Delegate to the International Sanitary Conference at Rome.

NEW INVENTIONS.

IMPROVED SPECTACLES FOR "FAR" AND "NEAR" MONOCULAR VISION.

BY R. R. GURLEY, M.D.,
OF BARNES'S HOSPITAL, WASHINGTON, D. C.

THE sides (with or without ear-hooks) rotate through three-quarters (instead of one-quarter) of a circle. The nose-piece is in the plane of the rims, not, as at present, at an angle to that plane. One side of the frame contains the "near," the other the "far" lens.

This saves the annoyance of two pairs of glasses, reversing being sufficient to change from "far" to "near" and *vice versâ*. A little thought shows that if two cylinders are required, the angle of *one* must be the *supplement* of the usual angle, as the direction of vision is reversed. Practically, this frame is very convenient.

A NEW PHIMOSIS INSTRUMENT.

BY R. W. KNOX, M.D.,
OF HOUSTON, TEXAS.

THE attention of the profession is called to a new forceps that will be found of service in excision of the prepuce, and in some other operations where a tissue- or suture-forceps is needed. The cut represents the instrument so accurately that a description is hardly neces-

[1] It is unnecessary to reprint here these somewhat lengthy documents, which fully justify the statements made by Dr. Sternberg.—EDITOR.

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sary. Each blade resembles a tuning-fork, having an open slit running through its middle for the last two

inches of its length, and when brought into contact with its fellow is fastened to any degree of tightness by a slide-catch in the handle. The advantage over the ordinary clamp is readily noticed, in that it is more easily fastened upon the part, and when fastened no tension upon the prepuce is necessary for its excision, the cut being made through the slits with a sharp-pointed bistoury. The mouse-toothed extremity makes it a tissue-forceps, and its advantage in steadying flaps for the introduction of sutures will be readily seen.

NEWS ITEMS.

PROVIDENCE.

(From our Special Correspondent.)

THE FISKE FUND PRIZES.—At the annual meeting of the Rhode Island Medical Society, held in Providence, June 11, 1885, the Committee on the Fiske Prize Fund, through Dr. Charles L. Parsons, Charman, reported as follows:

(1) For an essay bearing the motto, "Behold How Great a Matter a Little Fire Kindleth," and upon the subject, "The Present State of the Germ Theory," the sum of $200 was awarded the writer, Dr. Charles V. Chapin, of Providence.

(2) For an essay bearing the motto, "*Quid nimium probat, nihil probat*," and upon the subject, "The Physiological and Pathological Effects of the Use of Tobacco," the sum of $200 was awarded to the writer, Dr. Hobart Amory Hare, of Philadelphia, Pa.

The following subjects were then announced for the current year:

(1) "The Methods and Practical Results of Treatment of the Malarial Diseases now Prevalent in New England."

(2) "New and Altered Forms of Disease Due to the Advance of Civilization the Past Half Century."

For the best essay on either subject, worthy of a premium, the writer will receive the sum of $200.

MORE RESIGNATIONS FROM THE NEW ORGANIZATION OF THE CONGRESS.—We are requested to state that Dr. H. N. Spencer, of St. Louis, declines to accept the Vice-Presidency of the Section of Otology, and that Drs. C. H. Mastin, of Mobile, and Harrison Allen and Morris Longstreth, of Philadelphia, also decline to accept the offices to which they have been appointed by the New Committee.

PROPOSED CHANGE IN THE MEMBERSHIP OF THE CONGRESS.—The following suggestion, we understand, has been forwarded to the New Committee on the Organization of the Congress:

Resolved, That the Council of the New York State Medical Association respectfully recommend to the Committee of Arrangements for the International Medical Congress the following modification of the rule by which the American membership of the Congress is to be constituted, to wit: That the American membership of the Congress be constituted of delegates who shall be entitled to participate in the business and scientific proceedings, and of members who shall be entitled to participate only in the scientific proceedings of the Congress; that the delegates may be appointed by the American Medical Association and by State and local organizations in affiliation therewith in the proportion of one delegate for every ten or fraction of ten members of the organizations thus represented; that members of the regular medical profession of the United States may become members of the Congress by registering their names as such and by taking out tickets of admission.—*New York Medical Journal*, July 18th.

In commenting on this proposed change in the rule of membership, *The Medical Record* says: "This is virtually no compromise, since no self-respecting physician would accept membership or do work under such conditions."

THE ALLEGHENY COUNTY MEDICAL SOCIETY AND THE INTERNATIONAL MEDICAL CONGRESS.—The Allegheny County Medical Society, at a meeting held in Pittsburg July 21, 1885, adopted the following resolutions, which were offered by J. B. Murdoch, M.D.

Whereas, The American Medical Association, at its recent meeting in New Orleans, saw fit to revise the action and annul the appointments of the original Committee appointed at Washington, to make arrangements for the Ninth International Congress; and

Whereas, The new Committee, at its recent meeting in Chicago, has made such changes in the arrangements for the Congress as in our opinion will mar its success and prove injurious to the interests of the medical profession as well as to the interests of the American Medical Association; therefore be it

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Resolved, That the Allegheny County Medical Society disapprove of the recent action of the American Medical Association and its new Committee and respectfully recommends that the American Medical Association shall, at its next meeting in St. Louis, rescind its recent action and restore to the original Committee full power to make all the arrangements for the Ninth International Medical Congress.

Resolved, That the Secretary furnish a copy of the foregoing resolutions to the Secretary of the American Medical Association, and that he shall also furnish copies of the same to the *Journal of the American Medical Association* and to THE MEDICAL NEWS for publication.

PUBLIC OPINON ON THE CONGRESS ORGANIZATION.—The action of this Committee confirmed the gloomiest forebodings. The Committee chose as its officers men who, whatever may be their talents, had led the movement at New Orleans, and secured themselves in office. Many physicians who had accepted position in the Congress from the original Committee, despairing of the success of the undertaking in its new hands, determined to withdraw from the organization. Others, openly declaring they would not serve under such officers, also withdrew.

The meetings of the profession in Philadelphia, Boston, Baltimore, Washington, and Cincinnati, not to mention individual instances in other places, bear witness to the extent and earnestness of this feeling. Every day has brought fresh accessions to the list of those who decline to follow such leaders, and as the facts of this unfortunate business become more generally known, the list of those who distrust the leaders of the revolution inaugurated at New Orleans will grow apace.

Much was said at New Orleans and elsewhere about e Code question in connection with the Congress. ich gentlemen as have seen fit for reasons to withdraw om the Congress as at present organized, have been ccused of being unfriendly to the Code, and supporters f the New Code.

Philadelphia was the birth-place of the Code. There it was engrafted on the Constitution of the American Medical Association, and first offered as the creed of the profession in the United States, and there if anywhere, is its spirit a living spirit, and does its letter carry the force of law. And yet Philadelphia physicians were the first to take up arms against the New Orleans movement. But the question of Code was not in their minds. They well knew how adroitly and with what effect it had been used at the National Association, but when they met to record their objection to the Congress passing into the hands of its present leaders, the Code was never once mentioned; it was not thought of. The motives which influenced them, the causes which led them to decline to accept office in the Congress under its new organization, were of another and very different kind. Among other reasons these gentlemen withdrew from the Congress because—and chiefly—they distrusted the new management, and because the profession at large had been denied representation in that body.

When Dr. Leidy and Dr. Agnew, Dr. DaCosta and Dr. Stillé, Dr. Horatio Wood and Dr. Gross, and Dr. Parvin and their coadjutors met, their purpose was to withdraw from the Congress for the simple reason of distrust in its new management. They felt aggrieved at the behavior of the Association at New Orleans. They were dissatisfied with the action of the Committee at Chicago. And they went to record to this effect.

That the same feeling of distrust—not to use a stronger word—reaches to many other places, no observant man will deny. That it exists to such degree—that it exists at all, affords cause for the liveliest apprehension. That it will acquire such proportions as may lead the National Association to call a halt and undo some of the work it did in such unseemly haste at New Orleans, remains to be seen.

The conjuncture is certainly grave enough to make such action seasonable. And if wisdom united to courage and the charities direct and control the Association, it may still recover from the stab inflicted with its own hand at New Orleans, and bring the session of the International Congress in 1887 to a successful close. Otherwise the fate of the Association, no less than that of the Congress when it meets on American soil, is easily read.

The end of one will be disintegration and decay. That of the other will be mortifying failure. These are strong words, but sober withal.—*American Practitioner.*

The International Medical Congress, which is to convene in Washington, in 1887, it is to be feared will be a flat failure on account of the questions of medical politics and geography which have been raised by a few gentlemen who are anxious to play the rôle of Atlas to the medical world. Since the action of the committee at Chicago, scores of eminent physicians, whose names shed the brightest lustre on American medicine, living in Philadelphia, Boston, Baltimore, Louisville, and other large cities, have withdrawn and positively refuse to have anything to do with the matter. It now looks as though the Medical Congress will be like the play of Hamlet—with Hamlet left out. — *Indiana Medical Journal.*

The medical press, both in the United States and in England, has disapproved of the action of the American Medical Association in overthrowing the work of the Original Committee on the organization of the Congress. In fact, we are unable to mention at this time but one prominent journal which has sustained the Association in its course, and this is the journal owned by the Association and conducted solely in its interest. There seems to be no doubt in the minds of unbiassed and disinterested observers that the Association has been drawn into a position wholly untenable and unwarranted, and that its action was not only unwise but revolutionary. It is also evident to those who wish to see things in their true light, that the Association was drawn into this muddle by the action of but comparatively few of its members, whose motives, for their part in this affair, were not of the most disinterested character. The present outlook for the Congress admits of but one opinion, which is this, that the Association has committed a serious blunder and has shown itself incapable of reorganizing or conducting the Congress under its auspices. It seems clearly the duty of the Association to resign this matter into the hands of the general profession. The Association has so completely forfeited the confidence of the best minds of the pro-

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fession, and has so antagonized the medical press of the country, that it seems a mistaken policy for it to attempt to proceed with the work of reorganization. The new Committee entrusted with this matter finds itself embarrassed and restricted in its actions from every direction. Many of its appointees have declined to serve under its administration, and it will also find that as it attempts to fill vacancies other vacancies will occur.

To make a long story short, we much doubt whether many physicians with self-respect will consent to accept the gifts of this Committee second-hand. No man with proper feelings desires to be put in a false position and to accept honors already declined by others. Facts are stubborn realities, and the sooner the present Committee on the Reorganization of the Congress realizes the doleful part it has been called upon by the Association to play and refuses to perform this part, the better will it be for the Association, for the Congress, and for themselves. The resignation of this Committee will relieve the present embarrassment of the affairs of the Congress. It will then be possible for the Association to reorganize this work, or else to abandon quietly the scheme of holding the Congress under its auspices. The latter policy would seem to be the most advisable from the present point of view.—*Maryland Medical Journal.*

Notwithstanding the efforts to prevent the successful meeting of the Congress, it will convene, and the combined forces of all the discontented "tribes of the East" will not prevent it, and those who refuse to serve on the committees will find that their places will be filled by representative men, who will forget personalities for the sake of doing honor to the cause of medicine.

We would call the attention of our professional brethren across the Atlantic to the fact that we have about sixty millions of people on this side, and among them thousands of better men in the medical profession than those who seek to interfere with the proper organization of the International Medical Congress, which is to meet in Washington in 1887. The doctors from abroad may rest assured that they will meet with a hearty welcome at the Congress, and that their associates in that august body will consist of the most accomplished gentlemen in the United States, and that they will in no way be disappointed in their expectations.—*Medical Herald* (Louisville).

The arrogance with which a few members of the profession in the cities of Philadelphia, Baltimore, Washington, and Boston, assume to constitute not only *the* profession of those cities, but also *the* representatives of all the respectability and science of the profession in the United States—the bitterness with which they assail the American Medical Association—and the odium they attempt to cast upon the representatives from each State, chosen by the Association to constitute a part of the Committee on Organization of the Congress, through their chosen organs, make it necessary to analyze this seemingly heterogeneous mixture of arrogance, bitterness, and misrepresentation, to lay bare its true animus, that if any important mistakes have been made the medical world may see clearly what the mistakes were and *who made them.—The Journal of the American Medical Association.*

Those who have looked forward to taking part in the next International Medical Congress, and have counted perhaps on making personal experience of that friendliness and hospitality of which every English doctor who has yet crossed the Atlantic has brought back such golden report—yes, and not only those, but every practitioner to whom the reputation of his profession is dear—will have read with intense surprise, if not distress, the intelligence we published last week, that the Washington Congress is in imminent danger of falling through. We are sorry to announce that our worst anticipations are in process of realization. The leading practitioners of Philadelphia, many of whom were to hold high office in the Congress, according to the list distributed by Dr. Billings some months ago, met together on the 29th ultimo, and decided that, as the changes recently effected in the preliminary organization and rules for the International Medical Congress of 1887 "are inconsistent with the original plan, and detrimental to the interests of the medical profession in America, and of the International Medical Congress," they would decline "to hold any office whatsoever in connection with the said Congress as now proposed to be organized." This resolution was signed by thirty of the most distinguished practitioners in Philadelphia, including men like Weir Mitchell, Horatio Wood, Roberts Bartholow, Da Costa, Duhring, Goodell, Minis Hays, Leidy, Pepper, W. Osler, Stillé, Tyson, and Yandell. We hear that a similar movement is on foot in Boston, and that it is quite likely that the most distinguished practitioners in that hub of the universe will follow the lead of their Philadelphia *confrères.* And as some of the leading New York men, including Dr. Jacobi and Dr. Lefferts, who were to have presided over sections, have already been deposed from their places as adherents of the New Code; while Dr. Bowditch, the most respected physician of Massachusetts, has been struck off the list of vice-presidents for his sympathy with that party, it must be admitted that the *New York Medical Journal* is probably right in describing the outlook for the Congress as "gloomy." We can only hope that the sound sense for which our American cousins are so distinguished will prevail, and that the decisive action of the Philadelphia practitioners will rouse the mass of the profession in America to step in and to decide by overwhelming numbers before it is too late, that old controversies shall be sunk, that old ill-feeling shall be buried, and that no one shall be allowed to turn partisan spirit into a ladder for his own elevation at the expense of the reputation and good-fellowship of the profession to which he belongs.

We do not wish, and we hope no one on this side the Atlantic will attempt, to revive the memories of the celebrated dispute on the Codes. We believe that the late Dr. Panum, the lamented President of the Copenhagen Congress, distinctly insisted, when the invitation to America was accepted, that the Code question should not be raised; and we feel sure that a very large majority of English and Continental practitioners will refuse to cross the water if this understanding is not rigidly kept to. They will feel, too, that if they go to Washington they can only go as the guests of an undivided profession. A Congress from which the most distinguished representatives of American medicine were excluded, or had withdrawn, would not be worth going to as a scientific meeting, while the remembrance of the bitterness and heart-burnings which had attended its organization would rob its social distractions of all their charm. It would be like feasting with a man, while his

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wife, unjustly divorced, stood in the street watching. We can assure our American readers that, in the present case, the best English sympathies will be with the wife. The men whom English visitors, if they go, will go to see and hear, are the very men who have been elbowed out of the Congress. The scientific success of a Congress does not depend on numbers, but on quality. The profession in America is, no doubt, rich in numbers, as well as in scientific activity, but it is not so rich that it can afford to play all Europe with only pawns on its side of the board.—*London Medical Times.*

YELLOW FEVER AND CHOLERA.—The Marine Hospital Bureau is informed that up to July 16th there have been twenty-four cases and four deaths from yellow fever at Havana.

The United States Consul at Barcelona, Spain, makes a report to the Marine Hospital Bureau of the number of cases and deaths from cholera in the infected districts of Spain from the beginning of its appearance, March 4th, to July 4th. There were 28,044 cases and 12,347 deaths.

MEDICO-CHIRURGICAL COLLEGE OF PHILADELPHIA.—Dr. F. Le Sieur Weir has resigned the Chair of Dermatology in this institution.

THE ALUMNI ASSOCIATION PRIZE OF THE COLLEGE OF PHYSICIANS AND SURGEONS, N. Y.—This prize, of five hundred dollars, is open to the competition of alumni of the College, and will be awarded in May next for the best essay showing original research upon some medical subject.

THE BERLIN UNIVERSITY HYGIENIC INSTITUTE.—PROFESSOR KOCH commenced, on the 1st of this month, a monthly course of lectures on Bacteriology in the University Hygienic Institute. The arrangements of his new institute, to which the building formerly occupied by the Polytechnicum has been assigned, are not quite completed, but some of the laboratories are so far fitted up that Professor Koch can now deliver courses to the University, similar, though on a more extensive scale, to those arranged last autumn and winter for civil and military medical men. Professor Koch's official connection with the Imperial Board of Health has now ceased. He will now devote himself as Professor of the University, and Director of the new Hygienic Institute, to bacteriological study in connection with hygiene.—*British Medical Journal*, July 4, 1885.

THE COLORING OF PICKLES WITH COPPER.—By virtue of the power conferred upon him by law, the Commissioner of Health of Brooklyn has declared the practice of coloring pickles with copper, in any form, to be dangerous and detrimental to the public health, and has prohibited the selling, or having for sale, in Brooklyn, of pickles so colored.

NOTES AND QUERIES.

THE INTERNATIONAL MEDICAL CONGRESS.

To the Editor of THE MEDICAL NEWS.

SIR: Without intending, in the least, to censure the action of the special committee of the American Medical Association, which recently met at Chicago, I feel it to be incumbent upon me to resign the position which I hold as a member of the Council of Military and Naval Surgery and Medicine of the International Medical Congress, which was organized to assemble in Washington in 1887. The reasons which impel me to this step are: I was appointed to that position by the *Original Committee*, and as their action in organizing the Congress has been revised, and their appointments very largely annulled at the last meeting of the American Medical Association, I do not think I can, in justice to the committee from which I hold my appointment, longer continue my connection with the Congress as it is now organized. In withdrawing from the same, I now desire to state, as much as I oppose the action of what is known as the new Code party, and as heartily as I approve and endorse the Code of Ethics as adopted by the American Medical and American Surgical Associations, still I am thoroughly and entirely opposed to the introduction of any and all medico-political questions into the organization of purely scientific bodies such as the International Medical Congress. This furnishes another reason why I am unwilling to occupy any position which would seemingly indorse such action.

The Secretary-General, at whose hands I received my appointment, having resigned, and the gentleman selected to fill his vacancy declining to serve, leaves no one in position to whom I can address this communication. This must be my apology for intruding myself upon your journal.

I am, very respectfully,

C. H. MASTIN, M.D.

MOBILE, ALA., July 17, 1885.

PATHOLOGY OF THE LONDON HERBALIST.

"You know, sir, bad spirits means that the liver is out of order. The doctors gives you a deadly mineral pizen, which they calls blue pill, and it certainly do pizen 'em, but then you run the chance of being pizened yerself. You 've noticed the 'oles in a sheep's liver after it's cut up, 'aven't you? Well, them 'oles is caused by slugs, and 'uman bein's is infested just the same. So is awsiz (horses), bu' they don't never take no blue pill. Catch 'em! The doctors knows all about it, bless yer, but they don't talk so plain as me. *I* calls out-of-sort-ishness 'slugs in the liver,' and pizens 'em with three penn'rth of dandeloin tea, for which I charges thrippence. *They* calls it 'sluggishness of the liver,' and pizens 'em with a penn'rth of blue pill, for which they charges a guinea, and as often as not they pizens the patient too."—*London Cries*, 1885.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JULY 21 TO JULY 27, 1885.

BELL, JOS., H, *Major and Surgeon.*—Died at Yonkers, N.Y., July 21, 1885.

MCDOUGALL, CHARLES, *Lieutenant-Colonel and Surgeon* (retired).—Died at Fairfield, Va., July 25, 1885.

STRONG, NORTON, *Captain and Assistant Surgeon.*—Ordered for temporary field duty with battalion Eighth Cavalry, at Hillsboro, New Mexico.—*S. O. 34, Headquarters District of New Mexico*, June 27, 1885.

EVERTS, EDWARD, *First Lieutenant and Assistant Surgeon.*—Ordered for duty as Post Surgeon, Benicia Barracks, California.—*Par. 3, S. O. 70, Department of California*, July 15, 1885.

WINN, C. K., *Captain and Assistant Surgeon.*—Ordered for duty at Benicia Arsenal, California.—*Par. 3, S. O. 70, Department of California*, July 15, 1885. (*Modified par. 2, S. O. 68, S. O. Department of California.*)

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLVII. SATURDAY, AUGUST 8, 1885. No. 6.

ORIGINAL LECTURES.

A MODIFIED OPERATION FOR CYSTOCELE.

Remarks before the Cincinnati Obstetric Society.

BY THADDEUS A. REAMY, M.D.

(Specially reported for THE MEDICAL NEWS,

By James M. French, M.D.)

GENTLEMEN: Contrary to the custom of the Society, I will make a verbal instead of a written presentation of the subject assigned me. I do not desire to offer a new operation, but only a modification of the operations already proposed for the relief of cystocele. I will not go into the causes of cystocele any further than to bring forward the facts necessary to explain the operation proposed.

It is well known that Scanzoni advocated the doctrine that cystocele may exist primarily without a prolapsus of the anterior wall of the vagina or other conditions of the vagina to cause it, the vaginal prolapsus being secondary and dependent upon the cystocele. He supposes that in these cases there is spasm of the fibres of the body of the bladder, while the neck is quiet—the urine thus forced to remain in the fundus, dilating it and producing the cystocele. This view is adopted by many, but is discarded by most authors.

Cystocele is rarely found in women who have not borne children. It is rarely disassociated with deformity of the vagina. The walls of the vagina in such cases have been altered in their conditions, in their relations, and in their thickness. In short, we have a prolapsus, and this is especially the case if there is any great degree of cystocele. The bladder is to a great degree held in its position by the firmness and supporting power of the vaginal walls, the relations being intimate, and so long as the vagina maintains its proper strength, its proper size and relations, there can be little or no cystocele. It is now stoutly denied, especially by my friend, Dr. Frank P. Foster, of New York, that the vagina or perineum have anything to do in supporting the uterus. Be this as it may, it is clear that loss of the perineum and associate deformity of the vagina, play a very important rôle in cystocele, and this fact must be considered both in a study of causes and devising methods of treatment. Of course, we all know that generally in these cases one of the most troublesome symptoms is irritability of the bladder, although even this is held in question by some. I need not dwell longer on this part of the subject, as I am speaking to practitioners, not to students or beginners.

Now, the question is, What can be done for the relief of this condition? and it was to illustrate the operation for this that I brought the subject before you this evening. We know that the first and simplest methods which are employed are those which aim to hold the bladder in place by pessaries, etc. Dr. Skene has devised a pessary which is one of the very best within my knowledge. There are many others with which, of course, you are familiar. In simple cases these devices do very well indeed; but even in such cases they seldom accomplish a cure, operative measures becoming a necessity. I am well aware of the fact that in any surgical measures yet devised, we have not in all cases, even permanent relief, much less cure. Indeed there are many who deny that permanent relief is obtained by any surgical or other measures in any case. With these views I cannot agree. My own clinical experience fully warrants me in dissenting. In almost every case where there is not serious uterine prolapsus, as well as prolapsus of the vagina and bladder, permanent relief may be expected provided the surgery be well done. But of course in cases where there is perineal loss, with vaginal deformity and prolapse, the operation for cystocele proper must, in every instance, be associated with or supplemented by perineorrhaphy and, if necessary, colporrhaphy. The fallacies which are held by so many on this subject, in my judgment, have their origin chiefly in the erroneous conclusion that because it is difficult, and in many cases impossible to cure a uterine prolapsus, it is, therefore, impossible to cure a vaginal prolapsus, forgetting that the former frequently exists for a time without the latter; although it must be recognized by all that sooner or later the uterine displacement will generally follow as an inevitable result of the dragging of that organ by the prolapsed vagina and bladder. It is true the weight of the vagina is not great, though under such circumstances it is generally increased above normal, for subinvolution of the vagina is almost uniformly present; nevertheless the weight is quite sufficient to cause the evil. It is not the amount of weight, but the direction and character of the dragging that finally accomplish the bad results. I may as well here as elsewhere declare my belief that, in addition to this dragging upon the uterus, there is the negative influence: absence of such support as the normal vagina gives to the uterus. Unpopular as this view is at the present day, I still believe that this support is not wholly a myth, although, in former time, it has unquestionably been overestimated.

But as to surgical methods, I shall only refer to those proposed by Dieffenbach, Sims, and Emmet, though there are many others of merit. The method of Dieffenbach, as all know, consists of an elliptical denudation from the anterior vaginal wall, closing the edges by suture. When well done, union is firm, and in simple and mild cases the result is satisfactory. But in bad cases the extent of denudation necessary causes deformity of the vagina when the cure is effected. Sims's method consists of an elliptical denudation as in the method of Dieffenbach, but the whole surface is not denuded, only a narrow strip, forming the ellipse, the centre being undenuded thus (see blackboard). There are two important objections to this method. First, at

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the middle of the ellipse especially, so great is the tension upon the sutures, that they are liable to cut out at once. Secondly, when union is secured, the paths of denudation and of union are so narrow that in a short time the newly united tissue will have stretched under the tension to which it must be subjected, and the benefits of the operation are lost. These are just the same objections which exist against both Sims's and Emmet's operations for prolapsus of the posterior vaginal wall. The principles are the same, no matter which wall is to be treated.

For Emmet's latest operations, I must refer you to the figures in his book.[1] It will be seen that the lines of denudation follow no geometrical rules, and cannot be described. Two-thirds of the figure next to the uterus are in form not unlike the ellipse of Sims or Dieffenbach. The remaining portion is crescent-shaped with its concavity toward the urethra. These lines are approximated and union occurs. The old objections again arise. First, there is a portion in the centre undenuded, so that should union occur the tissues must yield in time. Second, as this distinguished author himself confesses, union at the triangular angles is difficult to obtain, a second operation often being necessary.

This last objection, Dr. Emmet thinks, he has now succeeded in overcoming by another modification which I do not detain you to describe, as you have access to his better description in his valuable text-book. It is sufficient for my purpose to say that in the modified operation one crescentic line of denudation crosses the base of the urethra with its convexity toward the meatus. Another similar line crosses the upper portion of the vagina with its concavity toward the uterus. This author, with the candor for which he has such just reputation, admits that he has tested the method in but few cases and cannot yet tell how it will stand the test of clinical experience. I must state my objection that this method also leaves the central portion of mucous membrane undenuded, so that it seems probable that the parts will yield.

As to my own method, I have followed it in public hospitals and in private practice for eight years, with very satisfactory results in favorable cases. I think it has some important advantages.

For the operation, the patient is placed in the extreme lithotomy position, an assistant holding each lower extremity, the posterior vaginal wall held back by Sims's speculum. The tissues are caught up by a small double-toothed tenaculum forceps, and the cutting is done with long scissors, sharp-pointed, curved on the flat—the same as used in perineorrhaphy.

A constant stream of water at 100° F. is allowed to play on the field of denudation, the water being carbolized. This controls hemorrhage and keeps the field clear.

I beg to refer you to the imperfect figure which I now draw on the blackboard, which explains the direction and extent of denudation, also the method of suturing and closing.

Fig. 1 illustrates practically the direction of the denudation, but of course this will vary with the amount of cystocele you are dealing with and the amount of tissue you desire to remove. The denudation is also modified in width or length as each case requires. If you desire to cut deeply, you must remember to avoid wounding the ureters as you denude

FIG. 1. FIG. 2.

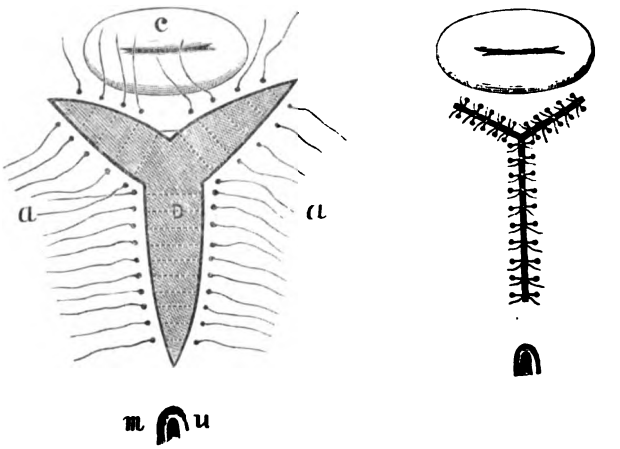

FIG. 1.—D. Denuded surface. The lines of denudation are sharply defined, so that when the sutures are tightened they shoulder against each other, and firm union by first intention is secured. Ordinarily no cicatricial tissue is found in the line of union.

a. This suture approximates the three angles.

c. Cervix.

m u. Meatus urinarius.

FIG. 2.—Position of parts after sutures are tightened so as to approximate the edges bounding the field of denudation. Sutures tied.

the lateral branches. There is, however, substantially no danger of this unless you carry the arms some distance out beyond the cervix. I have never encountered accident, but theoretically the danger does exist. I will call your attention later to the importance of carrying the denudation deep, and sometimes even into the bladder.

With regard to the position of the ureters, you will see by looking at plate No. 3, by Savage, that the relation is given. The bladder-wall is cut away, showing the relation of the cervix to the entrance of the ureters into the bladder, and it shows you the direction followed by the ureters as they enter.

The inquiry as to results might be stated as Thomas puts it. He says it is not material what direction the denudation may take, provided you get rid of sufficient redundant tissue (or words to that effect), and take up the pouch that is present, for it will contract from all directions. But you can readily see that the uterus is one fixed point, the meatus another, and the greatest amount of redundant tissue is situated just forward of the cervix. Now you can see a step further, that if you carry the arms of your denudation on either side of the cervix, the direction of the contraction will be directly in harmony with the original construction of the parts, and that the contraction, if you get union, will be in the very direction in which you desire to get support. Further, in this method the tissues can be safely subjected to greater traction than they can bear in any other method of procedure. In the clinical use of the

[1] Principles and Practice of Gynecology, third edition, pages 362–3.

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method you will find that you do not have to denude so large a field in order to get sufficient contraction, or, rather, no one path of denudation is so wide.

Now a word with regard to the depth of the denudation. As you come down toward the urethra, you can denude very deeply, but it is not necessary to go so deep there, as it is further up towards the bifurcation of the denudation. Here, however, if you simply take off the mucous membrane, and do not go through the muscular tissues of the vagina into the cellular tissue between vagina and bladder, the operation will fail, and because you can denude so deeply with safety by this plan is one of its chief advantages. In two cases in which I desired to cut deep, I have opened the bladder and formed a vesico-vaginal fistula, but I closed it up at once with the sutures of the operation for cystocele, and nothing untoward occurred. Denude deeply, for the more deeply within limits the more certain you will be to get good results. As already stated, at the upper extremities of the denudation it is better not to go too deeply, on account of the ureters; but that danger, as already stated, I do not regard as great.

The sutures are placed in much the same manner as in the other operations, only it is important that they be placed close together. I usually put as many as eight to the linear inch of the denudation. It is important that the suture marked "a" be placed as represented in the drawing. This is for the purpose of drawing the three arms of the Y together, when the stitch is drawn tight. The consequence is that the tissue is pulled forward and backward and the uterus being more fixed than the other parts, the tissue is put upon a stretch transversely also. It is immaterial whether the threads show on the denuded surface or simply split the tissues in the middle of the denuded surface. Even if the suture should go into the bladder, it will do no harm. It is important to get the border surfaces united perfectly by first intention.

The kind of suture I am using is the so-called silk worm gut, out of which fish-lines are made. It is really made of the intestines of a fish, it is an animal ligature, and you can with ease render it perfectly aseptic. It is strong enough for any purpose of this sort. You can draw it with almost your entire strength without breaking it. It is prepared for use by cutting the kinked ends off with the scissors, and throwing the rest into a carbolized solution—a ten or fifteen per cent. solution in warm water, and in a half hour it is ready for use. Tie two or three knots, or it may come undone, but you may cut the ends short or long as you please. Its advantages are: first, it is very smooth; you can arm the needle with it directly and it will not kink like a silver wire. Second, it has strength enough for any operation of this kind, including trachelorrhaphy. Third, if you render it antiseptic, my observation has been that no more suppuration will follow than follows silver wire. In this I agree with the opinion of my friend, Dr. Sutton, who has used this suture many times more than I have and who first advised me to employ it. Fourth, although the ligature gets soft enough in the preparation for you to tie it with ease, yet it gets no softer, although permitted to remain in the tissues three or four weeks, thus affording support as to position of tissues equal to that of silver wire. Fifth, although an animal ligature, it is not absorbed, and remains like a wire for weeks. Sixth, you can leave the cut ends in the vagina, for they will not jag the tissues, and even a No. 28 wire will jag if the ends are cut short.

After the operation the patient must be kept in bed and a self-retaining catheter kept in the bladder, constantly, for eight or ten days until union is complete. This, I regard as essential, since the distention of the bladder, which may not prevent union, will nevertheless prevent the union from occurring with the field of the operation in the contracted state so favorable to good results. These remarks will impress you as all the more important, if you recall my recommendation always to carry the denudation through the vaginal wall, at least near the centre.

I have operated after the method proposed in fifty cases, and think my experience warrants the claim that it possesses the following advantages:

1. Simplicity, ease of execution.

2. Less width of denudation is required at any given point, in order to secure the necessary contraction after closure than in other methods.

3. The deep denudation necessary to cure, in all cases, can be done by this method with greater safety.

4. Since tension upon any one line of the operation after union is less than after other methods, and since the deep denudation causes firm union, the good results are likely to be more permanent.

5. After cure, the vaginal orifice and entire anterior wall of the vagina will conform more perfectly to the original.

In closing the discussion which followed the above, DR. REAMY said: I shall have to dismiss the question that has been raised concerning the propriety of making a perineorrhaphy or a colporrhaphy posterior, by simply calling your attention to the fact, in the beginning of my remarks, I stated that what I should say had reference only to the operation for cystocele, without any of the complications, except prolapse of the exterior wall of the bladder, and I referred to the other complications only so far as to be understood. I have frequently made my operation, however, in connection with perineorrhaphy and posterior elytrorrhaphy. Of course, no man would make this operation alone except for pure cystocele, or cystocele with prolapse of the anterior vaginal wall, which is also cured by the operation. No treatment is complete unless you restore the vagina. It is advisable, however, when the posterior operation is to be done, and plenty of time is allotted to the operator, and where he can control the patient, to make the operation on the anterior wall first; then, as soon as the patient has recovered, and before she is out of bed, to make that on the posterior wall.

With reference to the method of Dieffenbach, for which one of the speakers has expressed preference, with Emmet's modification, if we take out sufficient tissue, in the elliptical form, it does well, provided the case is an uncomplicated one. To show that it is defective, however, we have but to consider what will be the shape of the cicatrix resulting from the removal of an elliptical portion of mucous membrane in a bad case demanding extensive denudation. Will not every one agree that it is the highest type of gynecological skill to restore deformed parts as nearly as possible to their natural condition? In Dieffenbach's operation what do you do? You draw the edges of an elliptical

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denudation together, and necessarily deform the vagina. The method disregards the form of the wall, and does not regard the constriction of the vagina where it goes forward to join the bladder wall. It makes a flat, straight surface. In addition to this it removes so broad a surface that to go deep is dangerous. The prime advantage of the operation proposed, on the other hand, is its simplicity, and the small amount of tissue removed. Still, if the two arms of the denudation are placed side by side, it will be seen that the amount of tissue removed is considerable. The apex of the undenuded surface between the arms is fixed to the anterior uterine wall, and the result is practically the same as if a much larger surface were denuded. No undenuded surface is covered up. The angles are so easily brought perfectly together that union readily occurs. The rule is to make the denudation wide or narrow, according to the degree of cystocele, and to carry the lower arm down far or only a short distance, according as urethrocele is present or absent.

In reply to the statement of a gentleman who thinks the proposed operation the same as that of a distinguished author named, except that the directions of the triangles are reversed, I remark that he is mistaken. First, the arms of the denudation are in different relations. Second, the central denudation in my operation, which runs longitudinally with the bladder, is complete—no undenuded portion—edge to edge. Finally, in this connection, it is eight years since my method was devised and done in a public hospital.

ORIGINAL ARTICLES.

COCAINE IN THE TREATMENT OF THE OPIUM HABIT.[1]

BY J. T. WHITTAKER, M.D.,
PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE IN THE MEDICAL COLLEGE OF OHIO, CINCINNATI.

THE remarks which I beg to offer to the Academy are based upon the treatment of two bad cases of the opium habit, one treated without, and one with, cocaine, whereby I had the opportunity of contrasting the effects. This contrast was made all the more striking from the fact that the case treated with cocaine had been on a previous occasion treated without it, the conditions on the two occasions being about the same.

My first opiophagist was a successful merchant who had fallen into the habit after prolonged use of the drug prescribed by his attending physician for relief of neuralgic pains. I shall not run the risk of wearying the Academy with details. This individual awoke one morning hemiplegic and hemianæsthetic, and it was the fright occasioned by these symptoms that led him to send for a physician. I found him a victim of confirmed morphinism. He had no less than five hypodermatic syringes in his various pockets (one in each coat-tail pocket), and was using the drug in this way in the quantity of fifteen grains per day. I undertook to cut the patient off at once, keeping him under close surveillance night and day, but symptoms of collapse with colliquative diarrhœa set in on the same evening, so that I was compelled to resort to the use of opium with large quantities of brandy to save his life.

The treatment of this case was a three weeks' siege of more or less constant attendance on my part, and vigilance on the part of the nurses. The victim of delirium tremens could scarcely have suffered more intense torture of mind. At last, at the end of about three weeks, the patient was able to walk about, and in another week to take daily rides; but there was still occasional insomnia, much mental distress manifested in a whining, whimpering, scolding way, and there remained occasional attacks of irregular shooting neuralgic pains in the arms and legs, which were quite defiant to all kinds of treatment. The pains seemed always more imaginary than real, but they formed the basis of complaint. At last the wife of the patient, who was much of a hysterical turn herself, concluded to take him to the faith-cure in a distant city. A stay of a week seemed to be of so much value to several members of the family as to justify the importation of the establishment to this city *en masse*. This was accordingly done, and thus was a branch of this ever-recurring temple of credulity set up with us. The original importers of it finding it growing a too expensive luxury, broke with it finally altogether, and rapidly increasing failures in treatment soon broke it up. But whether from pride, or lapse of time, or, what is more probable, from increasing general health after release from the opium, the patient continued to improve, and remains, I am informed, in a fair condition of health after the lapse of a year.

My second patient was a young woman of good physique, aged about twenty-five, who had likewise been introduced to morphinism by use of the drug in relief of an obstinate neuralgia—at least this was her story. Besides this physical there were psychical reasons in her situation in life which made her a more easy victim to the allurements of the drug. This patient, according to her own statement, had taken never more than three to five grains per day, and always by the mouth. After several ineffectual efforts to stop the use of it at her own house, she put herself under absolute control at the Good Samaritan Hospital. The morphia was withdrawn at once. Two nurses were detailed to watch this patient by night and day. The suffering that set in by the end of the second day was extreme. Quinine was given freely, and chloral at night, but without effect. There was no sleep throughout the night. On the next day, for a profuse diarrhœa, bismuth was ordered in full doses, and for the total anorexia the simple tincture of cinchona. At night atropia was administered hypodermatically with the statement, for its psychical effect, that the solution contained morphia The atropia produced no sleep whatever and by midnight the patient had become desperate. She pleaded for morphia continuously. The nurses, however, remained firm in their refusal. Forty grains of the bromide of potassium were then administered, but there was still no relief. The patient now tried a ruse which nearly proved successful. She pretended to fall asleep, whereupon the nurses, wearied by the watch of the previous night, fell into

[1] Being the remarks made in the opening of the discussion of the subject at the Cincinnati Academy of Medicine, June 29, 1885.

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a real deep sleep. The patient now arose and began a search for her clothes, which had been secreted; failing to find them, she tied her bed-clothing by the ends and by means of this improvised rope slid down to the ground, ran across the street and was found by a passing policeman standing in her night clothes pounding upon the door of a neighboring drug store to awaken the clerk. By the time the hospital authorities became aware of her escape the officer had returned the patient to the gates of the house. It was then thought best to practise gradual withdrawal of the drug, and this treatment was effectually carried out, but not without great distress, in the course of two weeks.

This patient persisted in refraining from opium for three years, when, during an attack of pneumonia, her physician in a distant city prescribed it in relief of her cough, and started her, according to her own account, anew in the habit. So soon as she felt herself thoroughly addicted to the drug she came back to this city to make the effort to desist from its use. She was taking now but two grains a day, one grain morning and evening, but she had the manner and bearing of a confirmed *habitué*. She made two distinct efforts to break the habit at her house, during which time she took large doses of the bromides, of chloral (two drachms in one night), of atropia, of the fluid extract of coca, and, on one occasion, to secure the only sleep she had, she inhaled chloroform for an hour. These statements were confirmed by a friend who had procured the remedies, as also by the presence of the drugs in the room.

Two weeks ago she reëntered the hospital under the promise which I had to make that I would prevent any undue suffering—anything that approached her previous experience—by the use of a sufficient quantity of morphia. Upon admission she was given ten drops of a four per cent. solution of the muriate of cocaine every two hours, but as this remedy produced no perceptible effect by night beyond a slight flushing of the face, she was allowed an injection of morphia, one-fourth of a grain. She rested fairly, but slept none that night, and on the following morning began to show the usual symptoms of abstinence. A cup of strong black coffee braced her for a time, but by ten o'clock she was in a state of great nervous unrest. I now gave her hypodermatically ten drops of a ten per cent. solution of cocaine. The effect was very striking; within five minutes the agitation subsided, the patient seated herself in a chair—she had been walking the floor wringing her hands—and with a flushed face and brightening eyes she expressed the immediate relief she felt, and began quite an animated conversation. This state of exhilaration was continued for an hour and a half, at the end of which time the old nervous symptoms began to assert themselves, and in two hours she was as bad as before.

Not to protract too much this history of a single case, I may state that four such doses were taken in the next twenty-four hours, two more than I had intended, always with the same immediate effect, but each time of shorter duration.

After the last two injections she complained of very unpleasant sensations in the chest—sensations of oppression—with a general feeling of distress, to such degree that she declared she would not have another injection. To this proposition I readily assented, as there seemed to be some failure in the action of the heart. These unpleasant sensations disappeared under the use of coffee and brandy, but the patient was by no means as comfortable as she had been after a dose of morphia. Except the quarter of a grain referred to, no morphia had now been taken for seventy-two hours. I left under the impression that the victory had been gained, but only to learn in the course of the same day that the patient, after some altercation with one of the attendants, had returned to her home. She sent for me in the afternoon and informed me that she had taken half a grain of morphia. I thereupon withdrew from the case.

Four days later I was again summoned to her house on another pretext. I found the patient entirely free from the influence of opium, so far as I could judge, and was called to prescribe for a severe diarrhœa from which she always suffered for a time when the drug was discontinued. She had not touched it since, she said, with an air of pride, and after the night's sleep which the half a grain had secured, she had really had no craving for it which she could not resist. I visited her daily for ten days thereafter, during which time she rapidly regained her color, increased her weight, and recovered her natural buoyancy of spirits. She was herself persuaded—and this was the opinion of her friends—that she had gained such an easy victory by the use of the injections of cocaine. Therefore I give the case for what it is worth. Perhaps it may be an incentive to trial of its value in cases where testimony may be more carefully weighed. From my own observations, I am convinced that cocaine alone is not a perfect antidote or substitute for morphia, but I feel sure that a faithful trial of it will show it to be the best auxiliary we have.

With the indulgence of the Academy, I will now venture to make some remarks upon the opium habit in general, more especially regarding its diagnosis, the tolerance which, as is universally known, is gradually established, the evils which finally ensue, and the most approved means of treatment in our possession.

For the more pronounced cases of this morbid condition we must take a passing glance at the Orient, where the opium habit prevails at all times, we might say, as an epidemic. The law which forbids the use of alcohol is largely responsible for the universal use of opium in Mohammedan lands. Some form or other of nerve narcotic seems to have become necessary to man, and this is the form which has substituted all others in the East. Then, other forms of religion, as that of the Buddhists, for example, impose upon their followers long periods of fasting and opium is taken to relieve the cravings of hunger. It is estimated that one hundred millions of Chinese are opium smokers. But the influence which is far more powerful in the East than either hunger or religion is the belief that opium has aphrodisiac properties. It is strange that this drug has come to be credited with

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such effects when if there is any thing definitely settled regarding it the very reverse is true, as is seen among all its *habitués* Some idea of the extent of the use of opium in India may be gathered from the fact that nearly two and a half millions of dollars are paid for license fees alone, many of the dealers in Calcutta, like the beer brewers in our own country, owning seventeen shops apiece. Richards made a series of extensive observations upon the opium eaters of India, 143 of whom had taken the drug from 10 to 20 years, 62 from 20 to 30 years, and 18 over 30 years, in quantities varying from two to forty-six grains per day. He remarks that when used in moderate quantity it produces no perceptible effects except anaphrodisia, and as regards crime its *habitués* compare very favorably with those of alcohol, as opium eaters are, as a rule, a law-abiding class. Further, that it contributes but very slightly to insanity, as the opium eaters thus affected constitute but 0 0007 of the population. Used in excess, it begets the same physical and psychical degradation noticed in other races. But the opium habit is unfortunately not confined to the followers of Mohamet, nor to the lands of the East. It has found its way extensively throughout Europe and is increasing every day with us. Allen Williams makes the astonishing statement in the British Encyclopædia that quite a million people in the United States are addicted to this habit and that though Chinese immigration has been brought to a stand, the number of *habitués* continues to increase. In Michigan one ounce per week is, he says, the average quantity used by each opiophagist. This statement would seem to bear the imprint of exaggeration if the physician may judge from his own observation, but it is contended by those who stand behind the scenes, or rather counters of our drug stores, that not all the truth is told. The victims who do become the clients of physicians, maintain that they have been introduced to the use of the drug in relief of pain. Physicians' prescriptions are filled and refilled continuously long after medical attendance has ceased or the cause for the use of the drug has disappeared. The victims of tabes, cancer, tuberculosis in advanced form, and other incurable diseases, furnish a certain but by no means the largest contingent of cases. The great percentage of cases is furnished by the individuals of neurotic temperament, of weak will power, or unfortunate surroundings.

The tolerance which is begotten to the use of opium has been known ever since the drug was used in medicine, which period antedates by many centuries the birth of Christ. We become familiar with excessive quantities in the treatment of peritonitis, tetanus, chole- and nephro lithiasis, mania, etc., but these quantities are equalled, if not exceeded by opium *habitués*. Thus Taylor reports that the average quantity of the English opiophagist is from 3 to 8 ounces of laudanum per day. Coleridge is said to have taken a pint a day, and it is reported of De Quincy that he took a quart a day. Disregarding these statements as lacking authentic support, I may cite the case reported by Husemann of a woman affected with carcinoma uteri who took at least 20 grains of morphia a day, and a similar case by Credé, whose patient took 52 grains a day. Jul. Beer reports the case of a woman affected with metritis and fistula, who often took 24 grains a day and who consumed more than a pound and a half of the acetate of morphia in the course of three years. Burkhart mentions a case of morphinism where the victim after long internal use commenced its administration subcutaneously with 30 grains, and later increased the dose. But the most famous case is that recorded by Albin Eder in the *Oesterreich Zeitschr. für prakt. Heilk.*, No. 33, 1864, of a preacher who had used the drug for eleven years. He commenced with the tincture, which he gradually increased to one ounce a day, then used opium in substance in doses increased from 18 to 160 grains a day. Thereupon he began the use of morphia at the rate of seven grains every 9 hours, which he increased some months later to 27, and finally to 45 grains.

When the condition known as morphinism is reached its signs are plain and easily discerned, but where but small quantities are taken there may be no outward manifestations of the vice at all. A growing irritability of temper, a spirit of fault-finding, a fretfulness over trifles, or a temporary exhilaration with its reaction of depression, an increase followed by a blunting of the usual sensitiveness, or a lack of delicacy and refinement, may be remarked by the closest relatives, but not perhaps in any suspected connection with the habit. There is no doubt that unless discovered by accident the great majority of these cases remain unrecognized until the more pronounced signs of the condition supervene with the gradually increased dose. Walle, of Hanover, who suffered in his own person, speaks of this as the first stage or phase of the condition. With the occurrence of the second stage ensue more distinctive physical and psychical signs which are easily recognized when once the suspicion of the physician is aroused. The body is usually bent, the gait is sluggish, all movements are slow and more or less uncertain; there are tremor of the hands, and muscular twitchings in various parts of the body. The face is pale or wears a yellowish or greenish cast, the expression is dull and heavy. The eyes are half closed, with slow drooping of the lids, to be often suddenly lifted and again to droop. The eyelids are red from frequent friction with the hands, which are also often brushed across the forehead. The pupils are contracted and irresponsive. There is more or less constant sniffling of the nose with occasional forcible sneezing and the discharge of a thin watery mucus. Characteristic changes are always to be observed in the teeth. This singular fact, first remarked by Combes, was communicated to the Paris Academy, April 28, 1885, by Rochard. It is noticed that so soon as the body becomes saturated with morphia the enamel of the opposed surfaces of the molar teeth begins to suffer. The process of decay next invades the premolars, and lastly the canine teeth to such degree as to give them a cup-shaped form. Caries of this kind being unattended with periostitis is not painful, though it runs a rapid course. Yawning, long, deep, and more frequent and protracted than when waking from sleep, is a quite characteristic sign. There is more or less complete anorexia with especial aversion to meats; the taste is

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blunted or lost; the tongue is coated; eructations, vomiting, and borborygmus are frequent; There is constipation or alternate diarrhœa, with, in the former case, unusually long stay and straining at stool, and the occasional discharge of mucus and blood. The skin sweats profusely after the slightest exercise or after any disturbance of the emotions. The urine in consequence becomes scant and dark; albuminuria or glycosuria may develop (Loewinstein); and the bladder becomes irritable when not quieted by the immediate effects of the drug. Amenorrhœa is common in the female and aspermatism in the male. The sexual functions, though slightly stimulated in their cerebral aspects at first, become gradually more and more obtunded until they are entirely lost, both as regards desire with pleasure and capacity. The average number of children of the opiophagist is reduced to 1.11 after eleven years of married life (Richards).

With these physical are associated psychical traits equally characteristic. There is the same languor of mind as of body, expressed in the general lack of interest or inability to concentrate the attention. It is plain to see that the intellectual and moral tone of the individual is reduced to a lower plane. The opiophagist grows neglectful of family duties and social obligations, becomes careless and untidy in dress, inconsiderate and indifferent to the opinions and regard of others, entirely preoccupied with his own sensations. The flashes of consciousness or wit which in highly sensitive, poetic, or overwrought imaginations may even exhibit the scintillations of genius, become more and more fitful and further apart, to leave the gloom of life more palpable and permanent than before. It is easy to stray from the rigid requirements of science to the airy realms of rhetoric in describing, or trying to illustrate this sombre state and still keep within the sober bounds of truth.

The last stage of morphinism is reached when the stage of apathy gives place to the stage of excitement. Such tolerance has now been established that appalling doses are required to maintain the effects. The gait has become more and more impaired. Lewin speaks of a case where it became necessary to use a cane, and there are on record cases which presented the symptoms of ataxia. The main cause of the excitement is the exhaustion produced by loss of sleep, which has now become impossible under whatever dose. Whatever interrupted sleep is secured leaves no sense of rest or refreshment. The bed is found tossed about in the morning with the jactitations of the night. Under this condition the expression grows more and more anxious and excited, the face is haggard, the eyes sunken and shining, there are outbursts of genuine mania, or delirium occurs with hallucinations under which the patient sinks with a slow marasmus, or with a condition of profound melancholy whose end may be precipitated by suicide.

There is, probably, no victim to the opium habit in excess that has not at some time made some effort to discontinue its use, as there is no *habitué* to any, even the most innocent quantity, who does not look forward to the time when he will abandon it altogether. The class of people who become addicted to opium, as to any vice, is precisely the class that abound the most in good intentions. But the desired result is rarely accomplished. The confirmed opium eater can never desist unaided, and cannot be always rescued permanently even with every assistance. Every failure in the attempt breaks anew the force of the will, or what fragments of it are left, until at last the victim surrenders with the resignation of despair. Recovery is, then, only possible by the substitution of the will of others. Absolute control, with perfect isolation, is therefore a *sine qua non* in the treatment of most of these cases. It becomes, then, a question whether or not the drug is to be suddenly withdrawn. The authorities are about equally divided upon this question, which had best be left to the judgment of the practitioner in the individual case; so much will depend in solving it upon the amount which has been taken, and the temperament and constitution of the individual patient. A gradual withdrawal entails much less severe, but more prolonged, suffering, and patients are much more willing to undertake a siege of this kind than to storm the citadel at once. In private practice, in the great majority of cases, there will be no assent on the part of the patient to any kind of treatment which does not promise decided assistance in the way of substitution, or so-called antidote, from the start. Patients who submit readily to sudden withdrawal, without conditions, and experience speedy cures, are cases of deception. They have the drug secreted about them, or obtain it from sympathizing attendants. Druggists, like saloon-keepers, who are very lenient in their supplies, easily overcome their scruples with the reflection that others will comply if they refuse.

Thus arises the question of an antidote. It is quite superfluous to mention here more than the names of the drugs which have enjoyed this reputation from time to time. Atropin, pilocarpin, muscarin, each possesses properties antagonistic to some of the effects of opium; and are hence, strictly speaking, antidotes in cases of acute poisoning by the drug. But none of these agents antagonizes the cerebral effects of opium, which constitute the chief suffering of the opium devotee. Chloral and chloroform, hyoscyamus, conium, etc., may force a sleep of a few hours, to leave the patient more wretched than before. The various bromides fail of even temporary relief. Strychnia, quinia or cinchona, capsicum, agents whose virtues have been vaunted in the treatment of morphinism, owe their reputation rather to transient indications they may meet than to any neutralization of effects. So far as real relief of the condition is concerned, none of the remedies equals in value prolonged warm baths, gentle friction of the surface, or the administration of a cup of strong, black coffee. I do not speak of the multitude of secret antidotes sold at large, and used in so-called "retreats." What virtue they possess is wholly due to opium. Large quantities of morphia are now exported to China for the cure of the opium habit. The powders are mixed with rice, and taken at gradually increasing intervals.

The true antidotes of opium being thus of so little use, search has been made in a different direction to find, not an antidote, but a substitute; and this investigation has been rewarded, to some extent, with

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the discovery of the properties of coca, a drug which, while it does possess some antidotal qualities—mydriasis, for instance—possesses more analogous properties, especially as regards its action on the brain.

Coca, or more properly cuca, is a remedy comparatively new in materia medica, but its popular use is as old, so far as we know, as opium itself. In comparatively modern times the wood of the coca tree, as one of the red woods, has become an article of extensive commerce on account of its color; but, long before this period, the leaves were found in common use as a masticatory by the natives of various parts of South America. The tree grows spontaneously on the east of the Andes, but has been successfully cultivated in Bolivia. It is estimated that eight millions of people chew the leaves of cuca, which they carry in leathern pouches mixed with the ash of other plants, which alkali softens the leaves for easier mastication. Two to three ounces of the leaves constitute the average daily quantity for each individual; but this quantity is exceeded when extra labor is to be performed, or when new stimulus is considered necessary for extra-aphrodisiac effects. It is the universal testimony of all travellers that cuca begets a singular exhilaration, a feeling of buoyancy and light-heartedness, an increase of muscular strength, insensibility to fatigue, obtunding of the sense of hunger, a peculiar suppleness of motion, "long-windedness" at high altitudes, and decided stimulation of the genital sense. Garcilasso never observed any ill-effects from its use, and Van Tschudi remarks upon the good health and longevity of those accustomed to it. Markham says of it that it is the "least injurious, and most soothing and invigorating of all the narcotics used by man." Dr. Archibald Smith makes the statement that cuca, "when fresh and good, and used moderately," increases nervous energy, removes drowsiness, enlivens the spirits, and enables the Indian to bear cold, wet, great bodily exertion, and even want of food to a surprising degree, with apparent ease and impunity." And, though it has been accused of producing in excess tremor of the limbs and a gloomy melancholy, he has never seen a case of the kind in an acquaintance with its effects on all classes of people for many years. The article on this subject in the *British Encyclopædia*, which contains several of the remarks cited, quotes also from an apostrophe by the poet Cowley concerning coca:

> "Whose juice suc'd in, and to the Stomach tak'n
> Long Hunger and long Labor can sustain;
> From which our faint and weary bodies find
> More Succour, more they cheer the drooping Mind
> Than can your Bacchus and your Ceres join'd."

The physiological effects of coca were first scientifically studied by Mantegezza in 1858, who showed that when chewed it keeps the teeth white, facilitates the process of digestion, and diffuses a sense of warmth over the whole body. The mouth, nose, and eyes become dry after its use and there is a decided increase of strength, of motility, and heightening of the intellectual faculties. The drug was used as a remedy for various forms of "dyspepsia" attended with pain, colic, enteralgia etc. In the following year, 1859, the first chemical analysis of the drug was made by Niemann, who discovered the alkaloid cocaine, a principle which had the property, upon its application to it, of making the tongue almost insensitive. It is singular that although this observation was subsequently made by Carus, of Leipsic, who noticed also that the same loss of sensation occurred in the throat, both statements having been later repeated also by Fronmüller and Schroff, and that Aurep in 1880 noticed loss of taste as well as touch in the tongue, and loss of sensation in the skin after a hypodermatic injection of cocaine, it is singular that our knowledge of the range of the anæsthetic properties of cocaine should have been reserved to last year, when ensued the almost accidental discovery by Koller of the anæsthesia of the eye following the application of the muriate of cocaine prepared by Merck.

It does not pertain to our subject to speak of the local anæsthetic properties of cocaine which formed the subject of full discussion in this Academy a few weeks ago. Nor is there much to add regarding this active principle of the drug to what has been said already concerning the substance itself. Freud has just published (May, 1885) the results of his studies with cocaine, testing its effects upon muscle with the dynamometer and its psychic reaction with Exner's neuramöbimeter, confirming the observations of clinical experience. The failures, or want of effect, so often noticed with coca itself, find ready explanations in the statement of Merck that the quantity of cocaine contained in various samples of coca leaves varies between 0.2 and 0.02 per cent. So uncertain have been the results of the use of coca in its various preparations that it has been practically abandoned in the treatment of morphinism except as one of the agents *ut aliquid faciat*, among which numerous preparations the conscientious practitioner would select one which had received some sanction in the treatment of the special disease. Moreover, the various unknown changes which the alkaloids undergo in the stomach, together with the more sluggish absorption, and the cost of the drug, give good reasons of support for the clinical experience that the only certain speedy and effective mode of administration is by the hypodermatic method. It is best at first to combine the cocaine with morphia, the muriate of each alkaloid preferably, commencing with a grain of cocaine and whatever strength of morphia may be considered best in the individual case, having especial reference to the quantity of morphia used, and then gradually withdraw the morphia. An approximate idea of the quantity of morphia that has been in daily use may be learned, if concealed, from the effects of the cocaine, as the more exhilaration or euphora produced, the less has been the quantity of morphia.

It is necessary to continue with the cocaine for several weeks after the morphia has been withdrawn, for Burkhardt has shown that the so-called abstinence symptoms, excitement, unrest, neuralgias, chills, sweatings, insomnia etc., with unappeasable cravings for the drug, may set in after two months of abstinence. Opium is known to remain a long time in the body in intimate union with the protoplasm of nervous tissue. Stas claims to have found morphia in bodies after 13 months of inhumation, and Drag-

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endorff and Kauzmann have shown that, mixed with moist organic matter, morphia preserves itself unchanged for months. It is essential here not to confound color reactions with the ptomaines, and to use in case of doubt the test of physiology. Such a mistake was actually made by Sonsegnos, and was rectified by Selmi after the manner mentioned, but this subject does not properly belong to this discussion. The fear of a cocaine habit is quite ungrounded, in fact. That is, there is no fear of danger, or of damage from small doses, and large ones produce effects too immediately unpleasant to lead to any abuse. The statement that the patient will return to his old habits in time is no real objection, as the physician is concerned only with the case in hand at the time and need have no more regard for the future than any other humanitarian, or at least no more concern than in the case of any other disease liable to return, malarial fever, for instance, with a new reception of the poison. During the interval of freedom the will of the patient may be, with proper methods, drilled to better discipline, just as, in time, we may sometimes drill with electricity the few twitchings of a paralyzed muscle to a more perfect tone.

CASE OF VARICELLA SIMULATING PEMPHIGUS.

BY W. H. GEDDINGS, M.D.,
OF AIKEN, S. C.

M. T., a little girl, five years of age, previously healthy, was attacked with scarlatina on the 26th of January. On the 31st the eruption disappeared, and the usual desquamation began. The latter process was exceedingly slow, lasting until February 14th. On the following day a number of translucent vesicles, about the size of a small split pea, appeared on the face and other parts of the body. A few of them were slightly umbilicated, but, as a rule, they were dome-shaped, quite thin, and filled with clear, serous fluid—presenting, in fact, all the appearances of varicella. The diagnosis was subsequently confirmed by the occurrence of several other cases of chickenpox in the same house.

Feb. 15 (second day of the eruption).—The vesicles are much larger, several of them being fully as large as a hazelnut. The contents of the vesicles have lost the crystalline appearance of yesterday, and become straw-colored. Any one seeing the case at this stage for the first time, and unfamiliar with its previous history, would at once have pronounced it to be pemphigus. She complains of some pain and considerable pruritus.

16th.—Pulse 126, but is reported to have been as high as 130. The bullæ continue to increase in size, some of those on the ankle being fully one inch in diameter.

17th.—Bullæ still larger, many of them being the size of an English walnut. On the ankle and leg several of them have become confluent, forming an immense bleb some four inches in length, occupying nearly the whole of the anterior surface of the leg, and almost encircling it. On the face and elsewhere there are a few fresh vesicles with clear contents, and differing in no aspect from those of an ordinary case of varicella. She suffers terribly with pain, and, where the cutis is exposed, the burning is so intolerable that she shrieks with agony.

18th.—No new bullæ.

19th.—Bullæ drying up.

20th.—Shrinkage of the bullæ and drying continue, but there is still some fever, and the little patient is so weak and exhausted with suffering that her hands shake like those of an old woman.

25th.—The bullæ and vesicles have all dried and exfoliated. She gradually recovered flesh and strength, and soon became bright and cheerful. At the time of her departure for her home, in New York, several months later, she had quite recovered her usual health.

We find, in dermatological literature, descriptions of varicella bullosa, and of urticaria bullosa, but, to my knowledge, no mention has ever been made of cases of varicella in which the bullæ exceeded an inch and a half in diameter.

TWO CASES OF DIPHTHERITIC CONJUNCTIVITIS.

BY G. DE SCHWEINITZ, M.D.,
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THE opportunity of studying types of conjunctival inflammation, complicated by a deposit of diphtheritic membrane, is perhaps sufficiently rare to make the following cases worthy of record:

CASE I.—Nellie C., two and a half years of age, was admitted to the Children's Hospital, February 2d, of this year, at that time suffering from a severe attack of phlyctenular keratitis. The course of this disease was unusually stubborn, and many relapses occurred. When the child was finally on the fair road to recovery she contracted measles, which were then epidemic in the Hospital. Her case of measles, although uncomplicated, was very decided, the temperature on one occasion reaching 106° F. During the fever and also during convalescence a marked relapse of the eye troubles occurred; so that, by the time convalescence was fully established, the child was the subject of a most pronounced case of mucopurulent conjunctival catarrh, with ulceration of both corneæ, the surfaces of the upper lids of both eyes and a large area of the surrounding skin of the face being covered with eczematous ulceration. Under treatment these lesions gradually abated until May 23d, about two weeks after the attack of measles, when the eyes in all particulars again put on an angry look.

On the following morning the symptoms were more aggravated, and the conjunctival surfaces of both upper lids were more or less covered with a gray exudation. The same exudate was further present in the mucous membrane of the nostrils, a few patches on the inner surface of the lower lip, and quite generally on the eczematous ulcers of the face, especially on the lower lids, where they were in contact with the under surfaces of the swollen and overhanging upper lids and consequently in contact with the exudation. Further, the upper lids were hot,

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tender and rigid, being difficult of eversion. The exudate, which was in, rather than upon, the mucous membranes, could not be wiped off, but was only detached with effort and left beneath a depressed and raw surface. In addition to these local manifestations marked constitutional disturbances were present. The pulse was rapid and feeble, the respiration noisy and frequent, the temperature elevated (101° in the morning, 103° in the evening), the tongue brown-coated and the skin harsh and dry.

In two days the membrane slowly changed from a gray to a yellowish-gray color; was more generally present and became more decidedly incorporated with the tissues. The suppuration, which had been so profuse, almost ceased; or, to speak more accurately, gave place to a thin, sanious discharge, intensely irritating, which ran from the eyes and nostrils and excoriated all surfaces with which it came in contact, adding thus to the general discomfort of the child and the disfigurement of her face. The exudation confined itself to the tarsal conjunctiva, leaving the ocular conjunctiva free, although greatly swollen and inflamed.

By the eighth day the disease, or at least its local manifestation, had reached its height, and from that time until the fourteenth day it gradually declined, the swelling of the lids slowly diminished, and the exudation both upon the face and conjunctiva disappeared.

At the present writing, one month after the onset of the disease, its external lesions have passed away. Both corneæ, however, have suffered severely. In each, the spot of previous ulceration has developed into an area of purulent infiltration with staphylomatous bulging, most marked on the left side, but in each also clear cornea remains, and later operative measures may restore fair vision to the child.

In the treatment of this case recourse was had to the following measures:

During the period of the greatest intensity of the local condition warm compresses were constantly applied to each eye. All affected areas were kept as clean as possible by frequently washing with a solution of bichloride of mercury (1:1000), and a solution of atropine (gr. iv–f℥j) was dropped into the eyes every three hours.

The constitutional treatment consisted in the administration of milk punch, quinine, and iron.

After the second day the child was given five minims of the tincture of the chloride of iron, and $\frac{1}{48}$ of a grain of bichloride of mercury every three hours and the quinine by suppositories. Variations in the treatment from day to day were necessary, but it is needless to refer to them in detail.

CASE II.—Joe W., aged ten, was admitted to my wards about the first of May on account of keratoiritis of his right eye. He was progressing favorably, when in his left cornea appeared a phlyctenule and later a phlyctenular ulcer, together with some conjunctival catarrh. This was pursuing the usual course of such a condition until May 27th, or four days after the disease in Case I. had appeared, when the eye and surrounding tissues took on great swelling, and an exacerbation of all previous symptoms occurred, especially of the catarrh, which became muco-purulent, or indeed entirely purulent. On the following day the upper lid was still more swollen, the discharge had diminished and a membrane, in all particulars resembling that seen in the case just described, appeared in the tarsal conjunctiva. On the third day the œdema of the upper lid was enormous; the purulent secretion had ceased; the cornea, a view of which could only be obtained with the greatest difficulty, was dull and hazy, "like that of a dead fish," and the membrane almost entirely covered the inner surface of the lids. Under treatment the symptoms gradually subsided, and now no traces of the disease remain, except a faint nebula at the inner margin of the cornea. The right eye, which was scrupulously protected, escaped infection.

In the treatment of this case, during the first thirty-six hours of the disease, iced compresses were applied to the eye and blood was taken from the temple, as the nutrition of the patient was good. These measures produced no appreciable effect, and at the end of that time for the cold compresses were substituted wads made of cotton steeped in water as hot as could be borne by the skin, the application being made for five minutes at a time every two hours. The cutaneous surface of this lid was further painted freely with collodion, with the hope that the contracting film thus produced would, by an even pressure, aid in diminishing the œdema. Strict attention to cleanliness, by the aid of antiseptic washes, was ordered, and mydriasis, by the use of atropine solution, maintained. In addition to these measures supporting food, milk punch, and quinia and iron were administered. The result of this treatment was most happy; the swelling subsided; the membrane disappeared; suppuration was reëstablished, and now scarcely any result of the disease remains.

Remarks.—It seems reasonable to place the epidemic of measles in direct etiological relation with the development of the first of these two cases. A child of depraved nutrition, disposed to facial eczema, and just convalescent from an attack of acute illness, is the typical subject for diphtheritic inflammation of the conjunctiva. It is further interesting that, in two other instances, this epidemic of measles in the Hospital was followed by diphtheria of other mucous surfaces—the larynx in one case and the fauces in another. In brief, the diphtheritic influence being present, this type of inflammation was the more readily engrafted upon a mucous membrane whose resisting power was lowered by previous inflammation and the effects of acute illness. To a certain extent the same conditions obtain in the second case; but it seems more natural to assume that, inasmuch as the same nurse attended to both cases, although in separate rooms, an accidental, but still a direct inoculation from the original case was the etiological factor. The fact that this attack pursued a much more benign course and recovery was reached without loss of any corneal tissue, is probably explained by the superior nutrition of this child as compared with that of the other.

Many other points in the etiology of diphtheritic conjunctivitis might be dwelt upon, but the whole subject has been so thoroughly investigated that it is only necessary to refer to the classical paper of A.

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von Gräefe (*Arch. f. Oph.*, I., i. 168, 1854), and the more recent discussion by Mr. Nettleship (*St. Thomas's Hospital Reports*, vol. x., 1880). Gräefe, De Wecker, and other continental ophthalmic surgeons, have made a distinction, more or less sharply marked, between diphtheritic and membranous ophthalmia; while Nettleship, and more recently Juler, are disinclined to maintain this distinction. Be this as it may, it seems proper to classify the two cases just reported, by virtue of the course they pursued and the pathological lesions which they exhibited, as instances of true diphtheritic conjunctivitis.

I have to thank my colleague, Dr. B. Alexander Randall, for his assistance in the treatment of these cases; and also Dr. S. D. Risley for valuable advice, he having kindly seen the cases with me during a brief absence of Dr. Randall from town.

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MEDICAL PROGRESS.

DIABETIC GLYCOSURIA IN OLD MEN.—DR. LANDRIEUX and H. ISCOVESCO reach the following conclusions relative to diabetic glycosuria in old men.

1. There is no reason to establish any essential difference between the terms glycosuria and glycosuric diabetes.

2. Senility gives to glycosuric diabetes special characteristics.

3. Senile glycosuric diabetes is ordinarily presented under the form of intermittent or remittent attacks.

4. Senile diabetes is frequently accompanied by other disorders of assimilation, as shown by azoturia, albuminuria, and the presence of the bile pigments.

5. The various mal-conditions observed in old men may be explained by a general ataxia of nutrition.—*La Progrès Médicale*, June 27, 1885.

FERRÁN'S CHOLERA INOCULATIONS.—Whatever may have been the attitude, whether of hope, of incredulity, or of suspension of judgment, which scientific men at first assumed with regard to Dr. Ferrán's alleged discoveries of the complete life cycle of Koch's bacillus, and of the immunity conferred by inoculation with it, he has, by his conduct towards the French Commissioners, headed by no less eminent a physician and sanitarian than Dr. Brouardel, completely put himself out of court, and thrown away all claim to the sympathy and support of the profession.

The disease that Ferrán induces in his subjects appears to be identical with, though happily for them milder than, that which Thiersch in his well-known experiments produced in mice, and which is now very properly held to have been a form of septicæmia, and not cholera at all; but that was in the dark ages of microzoic pathology.

But even supposing it were possible, as it may yet be found, to induce cholera by the injection of bacilli or their products, there is no ground whatever for imagining that it would confer immunity. It is true that those specific diseases, smallpox, measles, etc., one attack of which, as a rule, protects against a subsequent infection, and in which, therefore, artificial infection holds out a greater or less probability of a like immunity, do occasionally recur; but we have, considering the high mortality, the irregular distribution and the long intervals elapsing between epidemics of cholera in Europe, a number of instances of persons being again attacked, quite sufficient to justify the belief that one attack does not in any way protect against the disease in future, and that *à fortiori*, its inoculation, if practicable, would be utterly inoperative. Without repeating Jenner's experimental inoculations of smallpox after vaccination, persons are continually of necessity and in the path of duty exposed to risks and circumstances under which they must certainly have, in many cases, contracted the disease had not vaccination conferred protection. But in the case of a disease not contagious in the ordinary sense, as enteric fever or cholera, such conditions do not occur, and direct crucial experiment, as drinking the stools, being obviously inadmissible, it is difficult, if not impossible, to say that even some out of numbers of persons operated on must otherwise have been attacked. Protection, even as Ferrán asserts, for a few weeks is a pure assumption; indeed, the idea of temporary immunity requiring a repetition of the operation is entirely without analogy, and seems a mere device to obtain repeated fees.—*Medical Times and Gazette*, July 18, 1885.

THE CONTEMPORANEOUS USE OF IODIDE OF POTASSIUM AND CALOMEL.—A writer in *Il Morgagni* calls attention to the ill-effects following the local application of calomel to an ulcerated cornea in a patient who, at the same time, was receiving the iodide of potassium internally. According to the results of experiment upon animals, the reasons for the bad effect observed are that after some days the iodide of potassium is present in the lachrymal secretion, where, uniting with the calomel in the conjunctival sac, the protiodide and biniodide of mercury are formed; the first being irritant, the second exceedingly irritant, and even caustic. It is noteworthy that the same results have been noticed after baths of iodized water.—*Gazzetta degli Ospitali*, July 15, 1885.

NEW EXPERIMENTAL AND CLINICAL RESEARCHES UPON BRIGHT'S DISEASE.—PROF. MARIANO SEMMOLA deduces the following conclusions from the results of his latest experimental and clinical researches upon Bright's disease:

1. Albumen can traverse the renal tissue without any previous alteration in the histological elements of the kidney, and without leaving any trace of its passage.

2. If the passage of albumen is persistent, the first effect is hyperæmia with intraglomerular and intratubular hemorrhage, and the capsule is distended in a mass after boiling, and sometimes is simply raised and separated from the glomerulus by an empty space. There is also observed considerable migration of leucocytes without any alteration of the epithelium. The urine contains hyaline cylinders. These are the first results of an inflammatory action in relation with the functional activity of the kidney.

3. If the functional process persists beyond even eight or ten days, especially with the injection of albumen in the proportion of one gramme for every thousand grammes of the animal's weight, the invading process is attended by a mild inflammatory action, in

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addition to a turbid swelling of the epithelium of the tubules, fatty degeneration, and thickening of the intra-tubular connective tissue.

This proves that the functional activity, which the kidney must sustain in the gradual and prolonged elimination of inassimilable albumen, is apt to provoke successively in different parts of the organ an inflammatory process which, commencing in simple hyperæmia, may result finally in the establishment of interstitial nephritis. Prof. Semmola is convinced by repeating the experiments and injecting very minute quantities of albumen, in order to have the experiments well under control and preserve the life of the dog for seven or eight months, that they will result in producing the last phases of the large white kidney—that is to say, the atrophic kidney.

4. The histological alterations in the kidney persist for some time after the injection of the albumen without producing a continuation of albuminuria.

5. Along with the elimination of albumen with the urine is also observed *albuminocholia;* that is to say, the elimination of a certain quantity of albumen with the bile.

In relation with the above experiments, Prof. Semmola proposes to continue his researches on the pathology of Bright's disease with the following experiments to determine:

1. The comparative influence upon renal elimination produced by the injection of albuminose, which is presumably more assimilable, such as serum of blood, albumino-peptones, white of egg, and milk.

2. The influence of albuminous injections upon the crasis of the blood, and upon the elimination of a quantity of albumen greater than that injected.

3. The influence of albuminose injections upon degree of activity in the combustion of nitrogenous matters and upon the production of urea.

4. The influence of albuminose injections upon the dyscrasic condition of the blood, and their relations with the production of anasarca.—*La Medicina Contemporanea*, June, 1885.

POWDER FOR PYROSIS.—M. PETER in *L'Union Médicale*, July 18, 1885, recommends the following powder in the treatment of pyrosis:

℞.—Sodæ bicarb. . . . . gr. xl.
Cretæ præcip. . . . . gr. xv.
Ext. nucis vom. . . . . gr. iss.
M. Div. in chart. No. x.

S. One three times a day for patients submitted to milk diet with whom the milk does not agree.

If diarrhœa is also produced, the subnitrate of bismuth should be prescribed in doses of ten grains combined with a sixth of a grain of extract of nux vomica, and from one-sixth to one-third of a grain of powdered opium.

LUMBAR NEPHRECTOMY.—MR. CLEMENT LUCAS removed (in Guy's Hospital, on the 14th instant) a distended floating kidney, filled with large calculi, which could be felt through the abdominal parietes. The operation was performed without difficulty through the loin, leaving the peritoneum uninjured. The patient is progressing uninterruptedly towards recovery, her temperature continuing normal as before the operation.—*British Med. Journal*, July 25, 1885.

A CASE OF CORYZA CASEOSA.—DR. BOURNONVILLE reports a case of coryza caseosa, in an old man, 72 years of age, a coal-burner by trade. The patient, since 1882, had been inconvenienced by stoppage of the right nasal fossa, lachrymation of the right eye and violent pain in the right forehead and side of the nose, angle of the eye, upper jaw, and teeth. After a long remission of the symptoms, the pain again returned and invaded also the left side of the forehead.

The patient finally sought admission into the hospital, chiefly for trouble experienced with his eye. Pressure upon the right lachrymal sac caused the escape of a mucous discharge, for which the canaliculi were slit and Bowman's sound daily introduced through the nasal duct. The sound was movable in all directions, and if allowed to remain for a short time was found coated with a dark-brown deposit, nearly half an inch broad.

By this treatment, the lachrymation was diminished, and the patient left the hospital. He, however, returned in a short time, and an inflammatory fluctuating tumor had made its appearance over the lachrymal sac, the contents of which could not be pressed through the canaliculi. Incision gave free exit to considerable quantity of pus. In a few days a fluctuating tumor made its appearance over the left inner orbital angle, by pressure upon which pus was caused to flow from the incision on the right side, but not from the canaliculi of the left side. Incision now was made into this tumor, and shortly two fistulous openings made their appearance at the root of the nose, giving exit to a scanty, thick, ill-smelling discharge. A sound introduced could be moved upwards, inwards, and downwards. When water was injected through one fistulous opening, it escaped partly through the other and partly through the canaliculi of the right side and the nostrils, or through the pharynx into the mouth. The water in passing through the fistulous cavities became turbid, fetid, and contained a quantity of caseous particles. Daily cleansing of the fistulous passages with a 2½ per cent. solution of boric acid, and injection of the nose with a weak solution of common salt, produced no improvement. Examination, in which a little finger was introduced into the right nostril, caused the patient to choke, and to discharge through the mouth several fetid, putty-like masses the size of a walnut. Examination showed that the antrum of Highmore communicated with the nasal passage by a passage easily admitting the finger, and contained similar masses to those already discharged, and easily recognizable by the finger. Little bleeding resulted from examination. By use of the nasal douche, two additional masses were evacuated and free passage of air through the nostrils established, and examination showed the antrum to be free. The left nostril was normal. The fistula on the right side of the root of the nose healed promptly, but that on the left persisted, while the water injected escaped, carrying with it cheesy matter as above. The fistula was accordingly dilated, the periosteum loosened, and the opening in the lower wall of the sinus enlarged, so that thorough cleansing by injection was possible. Examination again made by reflected light through the fistulous

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opening, showed that only an inferior crest on the posterior wall of the septum remained,

The discharge of some additional putty-like masses and small pieces of necrotic bone followed the last-named treatment, after which the mucous membrane became clean and natural in appearance, and the wound healed in one week.—*Centralbl. für Chirurgie*, No. 16.

HYDRATE OF CHLORAL AS A PREVENTATIVE OF THE NIGHT SWEATS OF PHTHISIS.—NICOLAI, in the *Rif. Med.*, recommends hydrate of chloral in the night sweats of phthisis.

Two drachms of chloral hydrate are dissolved in two goblets of water and brandy in equal parts. In the evening, before going to sleep, the patient is sponged with the mixture.

If such application is insufficient, a shirt, wet in the same solution, is put on the patient during the night, and when removed the patient is wiped dry.

The effect of the remedy is excellent, especially in children suffering with the night sweats of phthisis. Frequently three or four applications are sufficient to cause cessation of the sweats, which persist for several weeks.—*Gazzetta degli Ospitali*, July 15, 1885.

TUMORS IN ANIMALS.—MR. J. R. BLAND SUTTON, F.R.C.S., in an elaborate study of tumors in animals, reaches the following interesting conclusions:

1. No tumors are peculiar to man; certain forms occur with greater frequency in him than in other animals, notably the cancers. This may depend on paucity of observations, but the conclusion is warranted by our present knowledge.

2. Sarcomata, fibromata, osteomata, and enchondromata are the most widely diffused of all growths; they occur in fish and all intermediate forms up to man. We have reliable evidence of the occurrence of osteomata in extinct forms; these growths constitute an ancient inheritance.

3. Fatty tumors are almost entirely confined to animals long domesticated,—the ox, horse, sheep, etc.

4. Odontomata are of frequent occurrence in mammals.—*The Journal of Anatomy and Physiology*, July, 1885 (London).

HYSTERICAL SUPPRESSION OF URINE.—A peculiar case has been communicated by DR. T. J. GRIBLING, of Waalwijk, to the Netherlands Medical Society, where there was profuse perspiration, accompanied with partial, and, for a time, complete suppression of urine. The patient was a girl of nervous constitution, who was, however, in good health till she was about 12, when she somewhat suddenly complained of extreme fatigue and want of power in the legs. She then began to suffer from violent headache of the left frontal region, which, though persistent, always became especially violent at noon. In the evening, when it abated, profuse general perspiration came on. When the writer first saw the child, this had been going on for some months. There were converging strabismus, and quick respiration and pulse; the temperature was normal, and no organic disease could be detected. The legs were quite powerless, but gave normal electric and reflex reactions. She had not at that time menstruated. The bowels acted very rarely, and the quantity of urine was very scanty. The food taken was very small in quantity; nevertheless, the girl's weight did not materially decrease. This state of things continued for a year, uninfluenced by arsenic, atropine, and numbers of other remedies which were tried. The suppression of urine then became absolute, and the perspiration still more profuse. The author was careful to remark in the patient's hearing that, when the urine returned, the perspiration would be diminished. In about five weeks' time, menstruation occurred, and a quantity of urine was passed. On this, the girl said to her mother: "Now the sweating will cease;" and, in fact, it did so, and did not return. The urine continues to be passed in satisfactory quantity, but there are still headache and want of power in the legs.—*British Med. Journal*, July 25, 1885.

A NEW METHOD OF ADMINISTERING PEPSIN.—DR. PROSSER JAMES recommends the following method of administering pepsin. He says:

In adding another to the numerous preparations of pepsin, it is unnecessary to enter upon its physiological or therapeutical action. Pepsin has conquered for itself an important position in modern practice, and the new preparation is simply designed to render its administration more easy, as well as more satisfactory. The importance of administering it within a short time of taking the food on which it is expected to act has been generally appreciated, so far as giving directions for the dose to be taken a little before or a little after a meal; but too often these directions are not implicitly followed, partly, perhaps, from the prejudice many patients have to take physic with their food; moreover, this plan is ineffectual. In natural digestion the pepsin is not all poured on the food at once. By the movements of the stomach its contents are successively exposed to the action of the gastric juice as they come in contact with the walls. To imitate this we might take pepsin in successive portions; but patients, who mostly think it hard to swallow a single dose of medicine with a meal, will not be easily persuaded to sip it, and they usually object to the taste of the liquids. There are other reasons why some of the preparations in common use are ineffectual. Thus, when taken with strong wines, the pepsin is precipitated, and the vinum is perhaps the worst preparation we can employ.

To secure pepsin being taken at the time it is required—that is, with the food on which it is to act—I have endeavored to convert it into a condiment. At first I tried a sauce, but with less success than I had hoped. Considering that pepsin is so associated in digestion with hydrochloric acid that some have held that a definite compound—pepto-hydrochloric acid—is formed, it occurred to me that, as chloride of sodium is the universal condiment, a combination with that salt offered the most likely solution of the problem I had set myself.

A simple mixture of pepsin with salt may be successfully employed as a digestive condiment, provided it be freshly prepared each time; for such a mixture, if kept, is apt to decompose, and the patient who has once observed this will take no more of the putrefying powder. How to overcome this difficulty was the next problem; and this has been also solved. The pepsin and the chloride must be brought together in such a way that possibly a compound, or pepto-chloride, may be formed.

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Whether such union occur or not, a powder thus prepared is quite stable. I have before me now a sample made many months ago, which has been used at intervals at the table in place of common salt. It has a faint color, which is not objectionable, and used as table salt is nearly indistinguishable from that condiment. Here, then, is a digestive condiment, a peptic salt, which many may be glad to try, and which has already given me satisfaction.

I propose to call it "peptic salt," or "digestive salt," or it may be ordered in prescriptions, if preferred, as salt-pepticus, or as pepto-chloride of sodium. Ten grains of my peptic salt will dissolve nearly 200 grains of hard-boiled albumen, or two ounces of lean-cooked meat. It may take the place of table-salt in the dyspeptic's dietary.—*The British Medical Journal*, May 16, 1885.

TREATMENT OF VOMITING IN THE INTESTINAL CATARRH OF CHILDREN.—DR. J. M. KEATING recommends the following as a very valuable remedy in the treatment of vomiting in the intestinal catarrh of children:

℞.—Sodæ bicarb. . . . . gr. xv.
Creasotæ . . . . . ♏ij.
Syrupi acaciæ . . . . fʒss.
Aquæ lavandulæ . . . fʒj.—M.
S.—Teaspoonful.

As the most valuable prescription for the treatment of cholera infantum, he recommends the following:

℞.—Morphiæ sulph. . . . gr. ½.
Acid. sulph. aromat. . . gtt. xxxij.
Sp. vini gallici . . . . fʒij.
Syrupi simp. . . . . fʒss.
Aquæ anisi . . . q. s. ad fʒij.—M.
S.—Teaspoonful every hour.—*The Archives of Pediatrics*, July 15, 1885.

CORROSIVE SUBLIMATE AS AN ANTISEPTIC IN OPHTHALMIC SURGERY.—M. CHIBRET read a paper before the third session of the French Society of Ophthalmology, in which he pointed out that notwithstanding the benefits that may frequently be obtained from the use of boric acid and carbolic acid, when an antiseptic is required, they frequently disappoint expectation. M. Chibret has for the last eight months employed corrosive sublimate with great advantage. At first he used it in the form of lotions and ointments, but lately he has had recourse to irrigation, the strength of the solution being 1 in 2000, a strength that is well borne by the healthy eye. It may be applied six times daily. In the first instance, M. Chibret employed it in cases of keratitis with severe and extensive inflammation and hypopyon. Struck with the extraordinary diminution in the degree of suppuration, he ventured to employ it in a case of panophthalmia from punctured wounds, and was not afraid to allow the fluid to penetrate into the interior of the eye. He was delighted to find the ophthalmia promptly arrested. In other cases of keratitis the same success attended the use of the remedy. He dwells on the importance of making the jet of fluid impinge with a certain amount of force on the tissue of the cornea and sclerotic, so as to have a certain penetrating power, and so to act not only on the surface but upon the deeper layers of these membranes. When the eyes are very irritable and the jet cannot be well borne, cocaine may be employed.—*The Practitioner*, July, 1885.

LOTION IN EXCESSIVE PERSPIRATION.—PROF. KAPOSI recommends the following lotion in excessive perspiration:

℞.—Naphthol . . . . . gr. lxxv.
Glycerinæ . . . . . fʒijss.
Alcoholis . . . . . fʒiijss.—M.

S.—Dissolve. Bathe the region which is the seat of hyperidrosis once or twice daily with the solution, and powder with simple starch or with starch and naphthol—2 parts to 100. In the case of profuse perspiration of the feet, put small pieces of wadding sprinkled with this powder between the toes. If baths with the lotion cause erythema, they must be suspended. In phthisical patients, when night sweats are severe, the use of the alcoholic solution of naphthol—1 or 2 parts to 100—frequently produces amelioration of the symptoms.—*L'Union Médicale*, June 27, 1885.

ON THE IMPORTANCE OF EARLY PARACENTESIS IN THE TREATMENT OF ASCITES.—DR EDWARD DRUMMOND, in a paper upon the foregoing subject, says:

It was certainly the practice once, and I believe it is still largely the case, to defer this operation too long, and only resort to it as a mere palliative measure, in order to give a few hours or days of respite from the suffering to which the presence of so much fluid in the abdomen naturally gives rise.

I have witnessed a large number of cases of cardiac, renal, and hepatic dropsy, in which all the ordinary routine treatment by drugs, hot-air baths, etc., failed to arrest, by a single hour, the onward march of the disease and its accompaniments; where a laboring heart, a cirrhosed liver, or disorganized kidney, had its difficulties intensified by the mere hydrostatic pressure of a great mass of fluid distending the peritoneal cavity.

Not to mention the increased difficulty, nay, the almost impossibility, of necessary movement, exercise, etc., all absorbent action of the vessels must be reduced to a standstill, every function of digestion, assimilation, micturition, defecation, obstructed; respiration and oxygenation of the blood impeded; the heart's action embarrassed; and the mere weight of fluid rendering compulsory the maintenance of a sitting posture, by day and night, must be fearfully exhausting to a patient in so advanced a stage of disease, in which the blood is so impoverished and so highly charged with the products of arrested secretion.

Proper diet, with a minimum of fluid, and such medicines as acetate of potassium, sulphate of magnesium, nitrous ether, jalap, elaterium, and other hydragogue cathartics, and still more, perhaps, digitalis, casca, or convallaria majalis, are no doubt useful, especially in the early stages, while iodide of potassium with iron and Baillie's pill must not be forgotten. All these, however, and many more similar preparations, will only excite illusive hopes.

If the fluid be removed by *early*, and, if necessary, *repeated* "tapping," followed by well-regulated firm

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pressure, then these remedial agents become really potent for good.

It is generally held that such a course of treatment is more especially useful in dropsy dependent upon cirrhosis, but I have found it less successful in cardiac and renal dropsy, and, in a fair proportion of cases, it has proved *curative*, while in all it has diminished the patient's sufferings, and made his invalid state endurable.

Where an advanced form of Bright's disease, a progressive cardiac lesion, malignant or albuminoid disease of the liver, or like inevitably fatal malady, stands behind, it can of course only be a palliative, but it is a *real* one; it robs a necessarily fatal illness of its worst horrors; gives literally *a breathing space*, a respite from unavoidable suffering, and adds some weeks or months of comfort to a doomed existence.

When, however, the ascites depends on a cause which is temporary—wholly removable or capable of becoming stationary—then paracentesis so practised is the chief means of cure. In any case it is impossible to insist too strongly on the importance of an early recourse to it, as adding tenfold efficacy to otherwise impotent therapeutic means.—*The Practitioner*, July, 1885.

DIAPHORETIC TREATMENT OF NEPHRITIS.—The *St. Petersburg Med. Woch.*, quoting from *Vrach*, reports the treatment of nephritic patients by N. HESS by wet packs, hot baths supplemented by wrapping in blankets, and hot-air baths, and draws the following conclusions: (1) The least rise of temperature occurs with packs, the greatest with hot baths. (2) While the temperature is found to sink still further twenty minutes after the pack, it remains at the same height for an hour after both the other methods of treatment. (3) After water baths the temperature regains its original height more slowly than after air baths. (4) During the pack the pulse becomes slower; during both water and air baths, on the contrary, it is quickened for an hour afterwards. (5) Under the influence of the pack, respiration is moderately quickened; during both water and air baths it is still more quickened, but subsequently returns to its normal rate more rapidly than after the pack. (6) The most powerful sudorific effects are produced by hot baths, the least powerful by packing. (7) Though the baths are more stimulating, packing soothes the action of the nervous system, brings the patient on better, and produces a subjective feeling of improvement afterwards.—*The Lancet*, June 27, 1885.

NERVOUS COLIC.—DR. SHERSHEVSKI, in the *Lyon Médical*, March 1, 1885, reports a number of cases of colic which seemed to be due to a neurasthenia of the nervous elements of the intestinal canal. They were all in intelligent individuals whose work was chiefly mental. These persons suffer habitually from constipation, with abdominal distention and burning eructations, but without loss of appetite. From time to time, under the influence of prolonged intellectual work or of mental emotions, an aggravation of this condition occurs, with the following symptoms: Excessive meteorism with or without a discharge of gas from the bowel, superficial panting respiration, cyanosis, pains in the neighborhood of the liver or in the umbilical region, or shifting, or feeling of weight in the lower part of the abdomen and severe tenesmus. The attacks subside after some days with the occurrence of copious evacuations. Shortly before their onset the feces become flattened, as if there were an intestinal stricture. The author attributes these symptoms to a lesion of the nervous system producing an intestinal spasm ocated in the circular fibres of the muscular coat. This theory of the etiology would seem to Dr. Shershevski to be demonstrated by the action of the remedies employed. For, while purgatives increase the pain and constipation, opium and belladonna reduce the meteorism and cure the attacks.—*The Practitioner*, July, 1885.

TREATMENT OF DIPHTHERIA BY THE HYDROCARBONS.—DR. DELTHIL, in the *Journal de Médecine de Paris*, gives the following practical exposition of the treatment of diphtheria by the hydrocarbons:

1. If a suspicious contact causes fear of angina maligna, as prophylactic measures, the individual may be submitted to vapors of the essence of turpentine, either by allowing him to respire them from time to time or by impregnating a couch, upon which he should recline, with the substance.

2. If diphtheritic symptoms are manifested, but do not appear especially grave, it will be sufficient to impregnate the patient's room with the vapors of turpentine, by submitting the remedy to a temperature of 140° F., by a warm-water bath.

The turpentine should be crude, and not rectified. Naturally, of course, the quantity evaporated should be proportionate to the size of the room. In a very large chamber numerous evaporating vessels are necessary. In nearly every case such vaporization is sufficient to prevent diphtheritic angina, if used at the initial period of the attack.

3. If after such measures the symptoms become more serious and assume a toxic character, fumigations, by combustion, of gas tar and spirits of turpentine should be practised as follows:

Take about ten drachms of tar and eight drachms of crude turpentine in a metal or earthen vessel. The mixture is then set on fire, and the fumigation thus produced should be repeated every two hours, or at greater intervals when amelioration is produced.

In order that the procedure may be successful, it should be carried out in a small room, in which all the outlets may easily be closed. Into such room the patient should be carried, and allowed to remain a half hour, and then be removed to his own chamber where the evaporation of turpentine should be constantly maintained. If the odor of turpentine, as sometimes happens, is too penetrating, this effect may be obviated by the addition of spirits of lemon or lavender, thus producing a true perfume.

Local applications of lime water or lemon juice should be made at least every hour, day and night. In the same manner a mixture of oil of sweet almonds, spirits of turpentine, lemon or lavender, with the yolk of an egg, and syrup of mucilage, may be used. Ipecac should be used as an emetic when it becomes necessary to rid the bronchi of free diphtheritic exudations. Tracheotomy, if necessary, should also be performed.

The duration of the treatment is commonly from twelve to fifteen days, during which the fumigations

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may be practised without danger even in children only a few months old.

Sulphate of quinia should also be employed when systemic intoxication exists, and the temperature of the sick-room should be kept at an elevated point.

SUPRAPUBIC CYSTOTOMY.—MR. F. SWINFORD EDWARDS, at the conclusion of a clinical lecture upon the above operation, says: Suprapubic cystotomy is on the whole the best operation for establishing a permanent outlet for the urine in cases of enlarged prostate and contracted bladder, where, the patient having to void on all occasions his urine by means of an instrument, lives in constant dread of the never-ending instrumentation. Of the relative merits of the suprapubic and prostatic punctures in cases of distended bladder with enlarged prostate, it is difficult to judge until we have more cases of the latter submitted to us. Personally, I should be inclined to favor the prostatic puncture on account of the capital drain it provides, and I should not be surprised were it in the future to take the place of both the rectal and suprapubic punctures where the outlet for urine has to be permanent.—*London Medical Times*, May 30, 1885.

TREATMENT BY SECTION OF HYDROCELE BY THE ANTISEPTIC METHOD.—MR. EDWARD BELLAMY, in discussing the treatment by section of hydrocele by the antiseptic method, says: The few remarks I make are based upon the results of a considerable number of cases I have treated, both in hospital and in private practice, in the early and later stages of hydrocele, by which latter I mean those which have been repeatedly tapped and in most instances injected. It is hardly necessary to take up space by instancing the individual cases. It is certainly time that the old-fashioned method of tapping and the supposed radical cure by continuous injection was done away with, as painful, dilatory, and generally useless. I claim no originality whatever in this treatment. I desire to call the attention of practitioners to the fact that they should invariably adopt the method of free incision with strict antiseptic precautions, and I cannot understand why it is not more universally carried out. Every surgeon knows of the method, but, as far as I see, contents himself with adhering to the usual proceedings. There is no danger in it. An anæsthetic can be given if necessary, the healing is rapid, the cure almost certain, if not absolutely so. The operation is as follows: The diagnosis, of course, being established, the scrotum should be shaved, and (if the surgeon thinks necessary) the spray used, the tumor is firmly grasped so as to render the parts as tense as possible. A clean sweep through all the scrotal tissues is then made with the bistoury from the cord to the base, and the fluid escapes. Every bleeding vessel, however small, must be twisted or tied most scrupulously, and the interior of the sac carefully examined for any vessel which may have been wounded or have given way. The cavity should then, not too tensely, be stuffed with either lint soaked in 1 in 40 carbolized oil or gauze, and the upper part of the edges of the wound stitched together, including all tissues—I do not see any advantage in stitching the cut edges of the sac to the sides of the wound—a small tag of the contents being left out of the most dependent part on the contingency of drainage, a pad of salicylic wool placed over all, and the scrotum supported by a cushion between the thighs. In a couple of days the parts may be dressed (under spray, if thought desirable), and the contents of the sac withdrawn. As a rule, considerable contraction of the walls of the sac will have set in, but it is advisable still to introduce the antiseptic material so long as any appreciable cavity exists, and this is generally for about a week in very favorable cases, when it will be found impossible to pass anything into it, and merely the lips of the original wound are left to close. Tubal drainage is, I venture to think, unnecessary. I have not yet met with any untoward constitutional symptoms by adopting this method, which is equally applicable to encysted hydrocele of the cord.—*Lancet*, July 4, 1885.

A NEW CASE OF CURE OF ILEUS BY WASHING OUT THE STOMACH.—DR. KUHN, in the *Bulletin Général de Thérapeutique*, of July 15, 1885, reports a case of ileus cured by washing out the stomach.

The patient was a man, aged about 60 years, and for a year previous had been subject to colic with alternate attacks of constipation and diarrhœa. For some time, however, these intestinal disorders had disappeared almost completely, when suddenly, on May 8, 1885, the patient was again seized with colic more violent than he had ever before suffered, and this in a short time was followed by vomiting. Dr. Kuhn was summoned, and found the patient suffering the greatest agony. The last matters vomited had a fecal appearance. Meteorism was considerable, and the hand applied to the belly easily distinguished the tumultuous movements of the distended intestinal coils. Very little gas escaped from the rectum. There had been no stool since the day previous. Nausea was persistent, and the temperature was normal. Treatment was carried out as follows: An injection of warm water was made, and in an hour followed by a second, of about seven drachms of castor oil, neither of which was followed by any result. At intervals of an hour, two hypodermic injections of $\frac{1}{4}$th grain morphia were given, and for treatment during the night a potion containing one drachm of chloral was prescribed.

In spite of the use of these drugs, the patient was restless during the whole night. The meteorism still persisted, as did also the nausea. Washing out the stomach was then proposed, and performed with a solution of soda bicarb. in a proportion of 3 to 1000.

The liquid did not return limpid until about two gallons had been used. The same evening, four or five hours subsequent to the treatment by irrigation, gas began to escape from the rectum, with consequent diminution of the meteorism. Though the improvement of the patient was very manifest, no movement of the bowels occurred, and, after waiting twenty-four hours, a second irrigation was made with water and soda bicarb., 6 parts to 1000. An injection of f ℥iss castor oil was administered, and eight granules of strychniæ sulph., each containing $\frac{1}{60}$th grain, were given, one every two hours. The same evening, movement of the bowels occurred, the meteorism entirely disappeared, and the patient recovered.

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CHOLURIA.

THE detection in the urine of biliary derivatives —except bile pigment, in the most general sense of the term—has always been imperfect and unsatisfactory. It is well known that Pettenkofer's test for the bile acids, by means of solution of cane sugar and sulphuric acid, so brilliant with the pure bile acids, or with inspissated bile diffused in water, is totally inoperative, even when bile is added to the urine. The determination of the clinical significance of such presence has, of course, been correspondingly unsatisfactory. Clinicians will, therefore, hail with pleasure any method which promises greater certainty than is now had in testing for these substances.

Such certainty seems to be promised by the recent researches of DR. GEORGE OLIVER, which appear in the third edition of his valuable little book, just published, on Bedside Urine-testing, and for which its present title is altogether too modest. In the first place, Dr. Oliver is disposed to consider that Pettenkofer's test does not react directly with the liver secreted salts, taurocholate and glycocholate of sodium, but only with the derived salt, the cholate. Hence, it does not indicate the presence of the biliary salts in fresh ox-bile until the latter have had time to decompose, and thus liberate the cholic acid; but it reacts at once and decisively after the bile has been boiled several hours with caustic potash, a procedure by which the bile-salts are broken up and the derivative, cholate, furnished. This, according to Dr. Oliver, is the reason why Pettenkofer's test acts with inspissated, and not with fresh bile, for the extract is an evaporated product, and the taurocholates are decomposed by simple boiling. This, too, explains why it fails to afford a distinctive reaction with jaundiced urines, which are highly charged with bile salts.

Dr. Oliver's proposed test is founded upon the physiological fact that when the products of gastric digestion, peptone and parapeptone, which leave the stomach in an acid solution, meet with the bile, they are thrown down in the shape of a tenacious layer over the entire mucous membrane of the duodenum. In like manner a solution of bile salts precipitates acidulated albuminous urine, or urine charged with peptone, and this precipitation of albuminous matter from an acid solution is also caused by the derivative of the bile salts, cholate of sodium, so that acidified albuminous urine becomes a test for bile salts, but an acidulated antiseptic solution of peptone is a readier and more delicate reagent. Such a solution Dr. Oliver makes by adding thirty grains of Savory & Moore's pulverized peptone, four grains of salicylic acid, and thirty minims of acetic acid to eight ounces of distilled water, and filtering to secure perfect transparency.

Now if twenty minims of perfectly clear urine, of normally acid reaction, reduced to a specific gravity of 1008 and containing bile salts in morbid quantity, are run upon sixty minims of the test-solution, a sharply defined, white band of peptone appears at the border between the two fluids; and on oscillating the tube, so as to mix a little of the urine with the test-solution, the upper part of the column presents an opacity, the density of which is proportionate to the amount of bile derivatives present, in marked contrast with the transparency of the urine below. On further agitation, the opalescence diminishes, and, perhaps, finally vanishes, but it is restored on adding more of the test-solution. The precipitate differs from all other urinary precipitates induced by an acidified reagent, in dissolving completely on adding a drop or two of acetic acid, or a citric acid test-paper, and diminishing, but not disappearing, on boiling, but the opacity is not affected by such a degree of warmth as is sufficient to dissolve urates. Further, an insufficiency, as well as an excess of acid interferes with the reaction, as also does an excess of proteids or of the bile salts themselves. Hence the importance of securing the proper proportions, as in Dr. Oliver's formula, and of diluting the urine to be operated upon.

This test, according to Dr. Oliver, is so delicate that there can be readily determined by it, one part of bile salts in at least 18,000 to 20,000 parts of a solution of chloride of sodium. So far he has been unable to find any other constituent of urine which will react similarly; and, although it is true that a concentrated solution of chloride of sodium in the presence of an acid will precipitate a proteid, experi-

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ment shows that when the peptone solution is run upon a solution of salt of any specific gravity below 1050, no precipitation takes place. If the urine contains the average proportion of bile salts found in the majority of healthy urines, or less, the reaction is a mere tinge of milkiness, and is, also, not immediate.

In further proof that this reaction with urine points to bile salts as its source, we have the following facts: (1) That biliary salts extracted from the bile produce an identical reaction. (2) That all the secretions, except bile, either do not act on the proteids at all, as saliva, or they dissolve them, as the gastric and pancreatic juices; and that the bile salts are the only constituents of that secretion which possess the property of throwing a proteid out of solution. (3) The test demonstrates that the proportion of bile salts present in normal urines varies in a well-defined degree with the activity of the digestive organs, showing that the agent reacting with the test is intimately connected with the digestive process. (4) Clinical experience.

As to further sources of error, mucin may be eliminated, because this substance in acid solution is not precipitated by the addition of more acid, and when it is thrown down in urine of acid reaction, it is highly probable that the acid added is not the reagent producing it, but merely supplies the requisite degree of acidity to enable the precipitant already present to operate, and in that event the mucin would only indicate the presence of bile salts.

Urates cannot become a source of error since the mode of application of the test, both qualitative and quantitative, requires the urine to be diluted to a specific gravity of 1008, by which solution of the urates is secured. In addition to the reason above given, the reduction in specific gravity to 1008 is done to obviate such fallacious results as are liable to occur in operating with urines of different densities—concentrated urines often simulating an excess, while urines of low specific gravity, though affording reaction similar to normal urines, may actually contain more than the normal amount of bile salts.

As further conditions of success, the urine, if not perfectly clear, should be made so by filtration; if cloudy from blood, it should be first boiled and then filtered. If alkaline, it must be brought to a normal degree of acid reaction by acetic acid.

Dr. Oliver has also made a peptone test-paper for bile-salts, and applies the test quantitatively, but for the details of this process we refer our readers to the book.

MODERN PHYSIOLOGICAL CONCEPTS.

THOSE physicians who acquired their instruction in physiology twenty-five years ago, and who have not given special attention to recent advances in that science, are somewhat bewildered occasionally by the modern views of which they from time to time catch glimpses in the journals. The very language is unfamiliar—katastates and katabolism, inhibition and trypsinogen were not mentioned in their text-books or by their lecturers; there seems to be a new chemistry mingled with the matter, and electrical apparatus of more or less complex arrangement seems a necessity at almost every step of modern physiological laboratory work.

To all such, who would like to obtain a general idea of the nature of the change which has occurred without being compelled to make a study of details, the article on physiology in the recently issued volume (xix.) of the *Encyclopædia Britannica* may be commended.

In this article Professor Michael Foster remarks that while the study of chemistry and physics should precede that of physiology, yet the exigencies of life brought the study of man, and so of physiology, to the front before its time; and hence the history of physiology shows many premature and vain attempts to solve physical and chemical problems before the advent of adequate physical and chemical knowledge. One of the first concepts of a living animal was that it is a complex of organs, each having its respective function, and hence the terms "organism" and "organic" came into use as distinctive of living things. On this theory the principal object of physiology was to discover the functions of the different organs, and, as far as possible, to show the connection of these functions with the location and structure of the organ. The simplest possible organ was supposed to be the cell, but presently it was found that simple plasm, with no differentiation into wall and contents, was capable of presenting all the phenomena supposed to be peculiar to life, and hence a new concept arose, viz., that organization is a concomitant and a result of vital action, but not its condition or cause.

Protoplasm, in Huxley's phrase, became the physical basis of life. This protoplasm differs in the relative prominence of one or another of the attributes or powers which are common to all protoplasm—*i. e.*, assimilation, contractility, etc., and these differences are supposed to be connected with corresponding differences in molecular constitution.

A mass of living, active protoplasm is compared to a fountain, the shape of which remains the same, although its constituents are constantly changing.

If we examine a cell of the pancreas we find that during a period of rest succeeding one of activity the cell increases in size, owing to an accumulation of material in the meshes of the network of protoplasm forming the cell. This material thus stored up is not precisely the same substance as that which characterizes the fully formed secretion. The characteristic

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constituent of pancreatic juice is a peculiar ferment called trypsin, and the granules which swell the pancreatic cells are not trypsin, but a material which, with a slight change, becomes trypsin, and which is called trypsinogen. This trypsinogen is more complex in composition than trypsin, and in its turn is supposed to be derived from a still more complex body—to be, in fact, a product of the metamorphosis of the protoplasm itself. This intermediate stage may be termed a mesostate, and as a mesostate may occur either in the process of building up or of decomposition, the term anastate is applied to the former, and katastate to the latter; trypsinogen, therefore, is a katastate.

So, also, in the action of a muscle cell there is supposed that a katastate called inogen is formed, and that this inogen is the source of the energy or force produced.

The building up of protoplasm stores up energy, which is set free in the breaking down. The same conception is applicable to nervous impulses, but we must refer to Professor Foster's paper for details. Those who are familiar with modern physiology will best appreciate his very clear exposition of some of the more recent theories, but the paper is not written especially for medical men, and will be enjoyed by any educated thoughtful reader.

When we began this article it was with the intention of commenting on the extent to which modern physiology is beginning to influence practical therapeutics, but want of space compels us to defer this until another time.

THE INTERNATIONAL MEDICAL CONGRESS.

RAPID disintegration still characterizes the new organization of the Congress. This week we are called upon to chronicle more resignations, and the list includes one Vice-President of the Congress, three Vice-Presidents of Sections, and several members of Councils. The very large number of appointees who have declined to accept office under the New Orleans committee are all Old Code men, both in principle and practice, and for the most part they are members of the American Medical Association. They recognize the falsity of the issues which were raised at New Orleans and they have promptly placed their emphatic seal of condemnation upon the most disgraceful piece of intrigue which has yet marred the history of that body, and which is in imminent danger of placing an ineffaceable stigma upon the good name of the whole American medical profession.

Although the hollowness of the Code cry has been fully exposed, we still find it being freely used by the new Committee and we learn that a circular, to which signatures are invited, has been extensively circulated through this State, expressing approval of the exclusion of the New Code men from membership in the Congress, and applauding the work of the Committee at Chicago, and it is headed "The action of the American Medical Association endorsed." The first response it appears to have elicited was the resolutions condemnatory of the action at New Orleans which were passed by the Allegheny County Medical Society and published last week, and this week we hear the echo from Texas.

The profession recognizes that on account of recent events there is imminent danger of its not being able to meet the obligations which it incurred by the invitation extended in its name at Copenhagen, and its members naturally look around to see what means can be found to avert the impending disaster which threatens to defile its good name.

The clearest and cleanest way out of the false position into which the profession has been entrapped by the plotters at New Orleans is for all appointees to discredit them completely by declining to accept office at their hands, and thus their organization must, of necessity, collapse. Already this has been largely done, and upwards of one hundred and twenty of the most eminent of their appointees have declined to be tools in their hands, and the sooner the remainder follow suit, the sooner will the way be opened to the profession to redeem its plighted honor.

At an early day THE MEDICAL NEWS will publish a complete list of the new organization of the Congress, showing who have declined to accept office under the new Committee. Gentlemen who have determined to refuse the positions to which they have been appointed, but whose resignations have not been published, are requested promptly to send notice of their intention to this office.

THE LAW REGULATING HOUSE DRAINAGE IN PHILADELPHIA.

THE law regulating house drainage in Philadelphia, which was passed by the Legislature of Pennsylvania at its recent session, will enable the Board of Health of that city to extend its usefulness to a branch of sanitary work over which it has heretofore had very limited control. Repeated efforts made within the past two years having failed to induce City Councils to adopt an ordinance having the same object in view as the law just passed, a conference was held between the Master Plumbers' Association of the city and the Board of Health, at which it was agreed to appeal to the Legislature, and accordingly a bill was prepared and forwarded to that body with a petition setting forth the necessity for the adoption of such a measure. The present law is the bill thus presented with slight amendment.

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In a former number we pointed out the defects in house drainage and plumbing which have become exceedingly common in this city, mainly in consequence of the want of a proper law regulating such work. A radical change in the prevailing objectionable practices may now be expected. The responsibility of the administration of the law devolves on the Board of Health. This body is given the fullest authority to adopt and promulgate suitable rules and regulations for the construction of house drainage and cesspools, and to provide for the registration of master plumbers and persons engaged in the plumbing business. It is authorized to establish a system of inspection and supervision over all house drainage, etc.; and, any violation of the rules and regulations it may adopt, is made punishable by severe penalties, and even by imprisonment.

In adopting regulations governing the business the board has the advantage of the experience of other cities which have already established a system of house drainage, and will thus be enabled to avoid mistakes which are apt to be committed by the inexperienced in any undertaking. The authority conferred is almost unrestricted, and it remains for the board to use it wisely. The Master Plumbers' Association is in hearty sympathy with the new movement, and may be relied upon to assist in the work of organization. It is to be regretted that cesspools in present use are excepted from the provisions of the act. It is said that this provision saved the bill from defeat, as there is a strong opposition among the people to any measure which would permit of the extinction of cesspools, which exist in great numbers in Philadelphia. Permanent cesspools, as forming a structural portion of the dwelling, are almost invariably nuisances, and ought to be superseded whereever sewers are accessible. It is not necessary, nor is it practicable to sweep these structures out of existence at once; but the regulations might have been framed so as to cause them to be abandoned gradually, without imposing too severe a burden upon any one. However, as the law stands, it is an exceedingly valuable addition to the sanitary statutes of the city, and its vigorous and wise enforcement will undoubtedly be of immense advantage to the public health.

A SUBSTITUTE FOR EMMET'S OPERATION.

DR. CORTIGUERA discusses Emmet's operation, in a paper recently presented to the Obstetric and Gynecological Society of Paris, an abstract of which is published in the July number of the *Archives de Tocologie*. He states that Emmet and those who have repeated, or who have parodied, his doctrines, say that in labor a fissure, of greater or less extent, occurs in the lips of the uterus, and that this lesion causes different disorders which constitute morbid entities, more or less grave, and the only remedy is to revive the disjoined surfaces and unite them.

It is not necessary for us to say that this is not a fair statement of Emmet's views—but so far as the parodists are concerned, it may be true.

Cortiguera divides tears of the neck of the womb into three classes; the first and most frequent of which produces general disorders; the second, general and local, while the third causes neither. He rejects all operations until a faithful trial has been made of other means for the cure of the disorders arising from the tear. But, if these fail, he substitutes for the suture amputation of the neck. This is certainly one of the strangest of recent professional vagaries, and needs but to be stated to insure its general condemnation.

SPECIAL ARTICLE.

FERRÁN'S CHOLERA INOCULATIONS.

PROF. VAN ERMENGEN contributes to the *Deutsche medicinische Wochenschrift*, of July 16th, the following report of his visit to Spain to investigate the cholera inoculations as practised by Dr. Ferrán.

Permit me to premise, he says, that my mission to Spain has not been so successful as I anticipated. The obscurity which surrounds many of the so-called inoculations I am unable to clear up. I trust, however, that it will be evident that the blame therefor does not entirely rest with me.

I came to Valencia on the 19th of June, in company with my friend Dr. Paul Gibier, assistant at the museum, who, like me, was sent by his government to study the methods of Dr. Ferrán. Our mutual aim, as well as our observations, have resulted in this—that the data which I collected in Spain have been brought together with the assistance and co-laboration of this eminent bacteriologist. I may also say that my conclusions in no matter of importance differ from his.

As Dr. Ferrán was in Madrid at the time of our arrival, we endeavored, first of all, to obtain some certain information as to the character of the epidemic. In the city, as well as in the hospital, we had the opportunity of seeing numerous cases, which were undoubtedly Asiatic cholera of the most terrible form—the asphyxic, dry cholera. Koch's comma-bacillus, in two autopsies, was found in the intestinal fluids, and in the stools of the sick in every case. I send you a culture, three generations in Agar-agar, in which you will recognize that the microbes isolated by us are identical with that discovered by Koch.

We have questioned and examined about three hundred persons who were inoculated and reinoculated. The phenomena which were observed after inoculation with Ferrán's vaccine, may be enumerated as follows: About five hours after the injection on the external portion of the upper part of the arm there appears an œdematous swelling, somewhat painful and ordinarily with little extension of swelling. This disappears in from twelve to twenty-four hours without leaving any traces or scar. At the same

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time there are observed symptoms of fever, malaise, chills, and a kind of stupor—symptoms which soon pass away and are always proportional to the local inflammatory action. In rare cases (about two or three) two or three liquid stools were observed without specific character. There were no pains or persistent cramps, but sometimes transient contractures. None of the cases observed showed symptoms even suggestive of algidity.

Blood taken from the index finger twelve hours after inoculation, in six tests was normal and contained no micrococci or bacteria. Even at the seat of the œdema—a centimetre from the periphery, the appearance of the blood was normal. In plate-cultures some drops in 10 cubic centimetres of 10 per cent. nutritive gelatine, there was no development of microörganisms. The liquid stools which one of the inoculated individuals afforded, we were unable to investigate.

The individuals who were subjected to revaccination with the second vaccine presented the same local symptoms. The latter appeared to us, ordinarily to be less severe, but it is probable that the method of inoculation which is distinct in each case, is the cause of the difference observed. The first vaccine was inoculated in our presence by deep injection into the muscular tissue, while the point of the hypodermic needle was inserted almost perpendicular to the bone deep into the arm. The method of reinoculation was, as we have found, the same as is ordinarily practised, by which the fluid is injected through a fold of the skin into the connective tissue.

I must add that we did not observe that the slightest precautions were taken to prevent the access of the germs from the air to the vaccine fluid. The vaccine was kept in an unsterilized cup, and was protected from air germs only by a single sheet of blotting paper. The syringe itself was sterilized, as it was called, by drawing a little boiling water through it. Dr. Ferrán neglects all the precautions which are observed in the laboratory in the inoculation of the lower animals. We should not, therefore, have been surprised if we had seen septicæmic appearances follow the inoculations, confirmatory of the reports which lately appeared in the *British Medical Journal* and *Deutsche med. Wochenschr.* I must, however, say in the interest of truth that in no case did we observe abscess or suppuration as a result of the vaccination. Scrupulous investigation concerning a case reported in Alcira, convinces us that the confidence of the correspondent of the *British Medical Journal* was abused. The Chinaman whom he there saw, was seized with cholera without having been vaccinated. A woman, the sister of Dr. Serra, in whom the reporter of the article in question had observed the development of gangrenous abscesses, suffered nothing else than a slight suppuration, which now has left a scarcely perceptible scar. In a letter in *las Provincias* of June 26th, a journal of Valencia, our esteemed correspondent from Alcira assures us that only seven or eight cases of abscess occurred in 10,000 inoculations. Ferrán denies responsibility for these and attributes their occurrence to negligence on the part of his assistants.

Alcira was the first region which the present epidemic of cholera visited. The town is situated upon an island which is formed by the meanderings of the river Jucar. The surroundings are in the highest degree conducive to that insalubrity which is specially noticeable in sundry regions of this portion of Spain. The influence of the water in causing the spread of the disease appears indisputable. As soon as the inhabitants began to drink water from a spring at some distance from the town, the epidemic decreased notably in intensity. The register of inoculation statistics and their results were furnished by the Spanish magistrates. In Alcira from the 18th of May to the 25th of June, 10,000 persons were inoculated—a number representing one-half of the population, which can be estimated at from 20,000 to 25,000—while the latest official census gives only 16,000. The cholera in two months claimed 130 victims—of whom 120 were not vaccinated, and ten had been vaccinated once or twice. This in comparison with other localities, as Burjasol, Murcia, etc., is an extremely small mortality, and shows, with far-reaching significance, that the statistics of Alcira were made to demonstrate the utility of Ferrán's vaccinations. We could obtain no detailed information concerning the social standing of the inoculated and the non-inoculated, concerning their age and sex, and concerning the time when the inoculations took place. It seems probable that the inhabitants of the better classes were vaccinated in great numbers, and for about a month.

In Algemesi, Alberique, etc., the statistics are still less significant.

I now come to the most difficult part of my investigations.

We must next convince ourselves of the presence of Koch's comma-bacillus in Ferrán's culture fluid. A drop of the fluid taken from one of eight balloons which were for the second vaccination enabled us to confirm the presence of Koch's bacillus, unmixed with other organisms. The bacilli were rather sparse, slender, and very small. And there existed none of the forms of development such as Ferrán claims to have discovered. In plate cultures we confirmed the presence of numerous small colonies of normal appearance. We observed that Ferrán's culture fluid was not very favorable to the development of cholera microbes, and that those which were in it quickly perished.

Dr. Ferrán later was very anxious to show us in older cultures the foreign forms which he had discovered in the cycle of development. He exhibited to us in bouillon fourteen days old, and much changed in appearance, voluminous mulberry-shaped bodies, which were five, or even ten times as large as a blood-corpuscle, which he assumes arise directly from endogenous spores of the comma-bacillus! These masses (Ferrán's mulberry-shaped bodies) resemble the concretions produced in uric acid salts by artificial change, and are readily dissolved in great part by hydrochloric acid and acetic acid. Other round, but less voluminous corpuscles which were found in the liquid, correspond, according to Ferrán, with free spores that had not developed so much. It is super-

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fluous to say that these forms of impurity are to be ascribed to an origin entirely different. The morphological studies which I undertook under the direction of the author, which he described and illustrated in the *Zeitschr. für klin. Med.*, 1885, led to no result. Ferrán asked more time than we had at our disposal to show us the several forms, and it seemed superfluous to us to pay further attention to the matter.

Even less did I have opportunity to study with Dr. Ferrán the globular masses to whose existence in stages of development of the comma bacillus I first called attention, and which I to-day still consider forms of development, and which are entirely distinct from the exaggerated changes which occur in the exhausted cultures. These are the forms which Ferrán has falsely pointed out as oögenous and oöpherous. I have, in my work, *Researches Concerning the Microbes of Cholera*, already considered these, and think, with my colleague and friend, Dr. Hueppe, of Wiesbaden, that they are very probably reproductive organs and which may be compared with the arthrospores.

I was very much surprised to see that Dr. Ferrán made no use of the perfected means for microscopic investigation of bacteria in the delicate morphological researches with which he was occupied. And every body will be the more astonished, as was I, when I say that he possesses no objective with homogeneous immersion, and Abbé's condenser, and that he omits to stain the bacteria which he studies. His methods of culture, also, are not beyond criticism. However, in order not to digress too widely, I will not make further reference to such points.

We submitted to Dr. Ferrán a series of questions in writing, the solution of which seemed to us indispensable before proceeding experimentally with the procedure which Dr. Ferrán employs in the preparation of his vaccine. To our great regret, Dr. Ferrán declined to answer these questions. He sent us word that it did not seem to him that the time had yet come to publish "his secret," and that he, in his own time and in his own work, would announce the same, and that this was lying in readiness to be sent to the Academy of Science in Paris.

This decision, which simplified our mission in such an unexpected manner, compelled us to abandon the further study of an arranged series of control-experiments. We are compelled to announce that we then requested Dr. Ferrán to supply us with a sufficient quantity of vaccine to carry out a series of experiments upon ourselves and upon animals. We had undertaken to institute comparative experiments concerning the operation of sterilized vaccine, or in that freed by filtration from microörganisms—in contrast with that subjected to no such measures—and we pointed out to Dr. Ferrán that these experiments would in no way render it possible for us to reveal his secret, which he wished to guard, in view of its publication *in toto*.

I may here add that the method of attenuation has already been given me by Dr. Ferrán himself by letter, and apparently consists in cultivating the degenerated microbes in a long series of cultivations of bouillon mixed with gall. We promised Dr. Ferrán, so far as the method of attenuation was new and different from that known to us, to pledge ourselves in writing not to reveal it before receiving permission from him, but without result. In the light of such treatment, which probably is not entirely without precedent in bacteriological science, we took our departure from the Spanish bacteriologist. The experiments which we were prevented from making in Valencia are in progress at the laboratory of the Museum for Comparative Pathology in Paris, and I shall probably report them at another time.

REVIEWS.

LECTURES ON DISEASES OF THE NERVOUS SYSTEM, ESPECIALLY IN WOMEN. By S. WEIR MITCHELL, M.D. Second edition, revised and enlarged, with five plates. Philadelphia: Lea Brothers & Co., 1885.

WE are glad to welcome a new and revised edition of this work, which occupies a unique position among treatises on the nervous system. It is the outcome of an experience singularly rich in those obscure and complex hysterical affections so grievously troublesome to the ordinary practitioner and so difficult to combat by ordinary therapeutical means. Thirteen of the seventeen chapters are devoted to the manifold forms and phases of hysteria, two to chorea, one to tremor, and one to chronic spasms. Three new sections have been added: On Hysteria and Organic Disease of the Spine; On Hysterical Joints; and On the Rectum and Defecation in Hysteria. A remarkable case is recorded of hysterical knee with plastic infiltration of connective tissue outside the capsule, which, as the author remarks, is full of instruction to those who believe that hysteria never gives rise to organic changes. The case reported in Lecture XIV. is of unusual interest, showing how completely hysteria may simulate profound organic disease of the spine—in fact, all the features of local myelitis and degeneration were present, and yet under appropriate treatment the patient recovered completely. The concluding lecture is upon the management of these severe cases by seclusion, rest, massage, and feeding—a method which, rightly carried out in appropriate cases, has proved so remarkably successful in the hands of the author and others.

SOCIETY PROCEEDINGS.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, June 4, 1885.

THE PRESIDENT, B. F. BAER, M.D., IN THE CHAIR.

BINIODIDE OF MERCURY AS A DISINFECTANT IN OBSTETRICS.

DR. E. R. BERNARDY said that his attention was first attracted to the use of the biniodide of mercury as a germicide by Dr. Miquel, who published in *L'Annuaire Meterologique de 1884*, the results of some experiments made to determine the minimum amount of a disinfectant necessary to prevent fermentation in a litre of sterilized beef-broth. His experiments show that the mercurials are the best antiseptics, the biniodide being nearly three times as strong as the bichloride. In his

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table of disinfectants, he places the bichloride the fourth on the list. To a litre of sterilized beef-broth, he found it required 0.025 gramme of the biniodide of mercury to keep the broth pure; while 0.070 gramme of the bichloride of mercury was necessary to produce like effects. This shows that bacterial life is impossible in a solution of one-forty-thousandth part of the biniodide, while of the bichloride it requires the one-fourteen-thousandth part. I was so forcibly impressed with his experiments that I determined to give the biniodide of mercury a trial in obstetric cases where it would be necessary to use an antiseptic. The following are the cases in which it was used.

Case I.—On February 7, 1885, I was requested to take charge of Mrs. I., who had been confined about six weeks previously. It had been her second confinement, the duration of labor had been short and delivery natural, but an extensive laceration of the perineum had occurred. No attempt had been made to bring the parts together by sutures. On the third evening she had been attacked with severe frontal headache and chills, followed by fever with great tenderness over the region of the uterus. There being no improvement in her condition, her medical attendant was discharged, another called in, who gave such an unfavorable prognosis, that he also was requested to cease his attendance. I was finally called in on the above date. The patient had well-marked symptoms of septic poisoning, pulse 130 to 140, small and thready, and disappearing under pressure of the finger; temperature 104°–105°; slightly delirious, constant vomiting, abdomen swollen and excessively tender; uterus enlarged, extending fully three inches above the pubis. In the right side there seemed to be a growth extending up into the abdomen, tender on pressure. On making a vaginal examination, I found the os dilated so that my index-finger could readily enter the uterus. Its withdrawal was followed by a gush of highly offensive matter. The uterus was surrounded by organized lymph, and was immovable. The mass on the right side was easily detected, and was continuous with the lymph surrounding the uterus. The vagina was hot. The perineum was torn to the anus; the surface raw and secreting an acrid matter, which scalded the surrounding parts. The urine was dark, on straining a reddish material settled to the bottom, it looked like blood-corpuscles. Dr. A. E. Roussel examined the specimen and reported it to be slightly acid, no albumen or sugar; under the microscope, occasional pus-corpuscles, and swarming with bacteria. In conjunction with internal treatment, intrauterine injections were made three or four times a day. I first used a solution of bichloride of mercury one to two thousand. This was continued for three days without any marked results. The discharges continued as offensive. On the fourth day the bichloride was discontinued and replaced by a one to four thousand solution of biniodide of mercury. Within twenty-four hours an amelioration of all symptoms took place, the pulse fell to 100, temperature to 101°, urine became clear, and the discharge odorless. The injections were continued for ten days, their frequency being gradually reduced. The uterus returned to almost its normal size and the lymph was gradually absorbed. The patient recovered.

Case II.—March 19, 1885, I was called to attend Mrs. W. in her first confinement. On my arrival, found she had been in labor several hours. Examination showed the os perfectly dilated, bag of water protruding, vertex presentation, first position, ruptured the amnion. The vagina near its outlet was roughened with venereal warts; these spread also over the vulva. Labor progressed rapidly, and the second stage was happily ended. After waiting nearly an hour, making compression on the uterus, I made slight traction on the cord, and while doing so, felt, with my hand upon the uterus, a cup-like depression of the fundus take place. This convinced me that I had an adherent placenta to deal with, and it would be folly to wait any longer. On introduction of the hand, I found the placenta completely adherent; one could hardly say which was uterus, which placenta. After considerable trouble I at last succeeded in detaching the placenta; it took fully an hour. On making a second examination to ascertain if all had been removed, my hand came in contact with long shreds hanging from all sides of the uterus; the more I scraped, the more there seemed to be. I gave the patient f℥ij of the extract of ergot. The patient did well for two days, when, toward evening, she complained of a chill and severe frontal headache. I gave her quiniæ sulph., gr. x, with morph. sulph, gr. ¼, at one dose; washed out the uterus with a 1 to 4000 solution of biniodide of mercury. The pulse was 115, and temperature 102°. The discharge was highly offensive. The injections were repeated every four hours. On the evening of the next day the pulse was 98, temperature 100°, discharge odorless, and the patient was perfectly well in ten days more.

Case III.—April 23, 1885, I was requested to call at once to see Mrs. K., who was reported in imminent danger of death; this was her ninth confinement. The history of the previous ones, with one exception, was not good. Her labors were natural, but were followed by terrible flooding and protracted convalescence. I found the patient in an attack of puerperal convulsions. I gave at once grs. xxx of potass. bromide and grs. xx of chloral hydrate. This dose was repeated in half an hour. Ten minutes later another convulsion occurred. I then bled the patient freely. The os uteri was somewhat enlarged, the cervix soft and dilatable, vertex presentation. Dr. Curtin, whom I had sent for, having confirmed my opinion, and considering that the patient's time was quite up, we decided to etherize, dilate the cervix, and deliver. The forceps were applied, and traction made at intervals. A living child was safely delivered. Continuous pressure was maintained over the uterus; but, after the expulsion of the placenta, the uterus did not contract until it had been washed out with hot water. The bromide and chloral were continued every two hours, and no more convulsions occurred. The patient did well up to the fourth day, when the discharges became very offensive, the pulse accelerated, and slight tenderness existed over the uterus; no chill or fever. The uterus was thoroughly washed out with a solution of the 1 to 4000 biniodide of mercury. Within twenty-four hours the discharge became odorless, and the tenderness over the uterus had disappeared. The patient recovered after a tedious convalescence.

In these cases it will be seen that the biniodide was prompt in its action, markedly so in Case I., where the bichloride and the biniodide were both employed, the

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result being decidedly in favor of the biniodide. Naturally it will be said: here are only three cases from which deductions are to be drawn, and yet it is only after it has been carefully used in a large number of cases that its efficacy can be proved. It is for this reason that I call the attention of the members of this Society who are in a position to give it a fair and impartial trial, and at some future time give the results of their investigations. I have found the 1 to 4000 solution of the biniodide non-irritating. I have used it extensively in my gynecic practice, and in washing out pus cavities, with good results. In it we have a preparation where the smallest amount of drug is used with results far exceeding those of any other antiseptic. On account of the small quantity of mercury, there will be less chance of salivation.

The method I have pursued in making the solution is: Take three and a half grains of the salt, well triturated in a mortar, and rubbed with one quart of boiling water, slowly added, giving a solution of 1 to 4390.

Since writing the above, I have seen in the Philadelphia *Medical Times*, May 16, 1885, that H. Panas, Eye Surgeon of the Hôtel-Dieu, uses the 1 to 25,000 solution of biniodide of mercury in eye cases. He makes the following statements: "After a number of experiments, I have convinced myself that a solution in water of 1 to 10,000 of the bichloride, or a similar solution of 1 to 25,000 of the biniodide of mercury, is much superior to any other antiseptic solution employed in eye surgery." Here again we have a statement that the biniodide in a smaller quantity is as good an antiseptic as the bichloride.

DR. MONTGOMERY'S experience has led him to the conclusion that the bichloride of mercury is far more effective as a disinfectant than carbolic acid. Its introduction into the Philadelphia Hospital was due to Dr. Parvin, who found it very satisfactory. In eighteen cases of puerperal fever that were treated with bichloride injections only three deaths occurred. This success was attributed by the hospital staff to the use of the bichloride. Dr. Montgomery, in private practice, follows the plan of Dr. Garrigues, of New York, and avoids intrauterine injections after labor, but applies pledgets, wet with a bichloride solution, over the vulva, after carefully cleansing away clots and washing the external parts with a similar solution. This sponging is repeated twice every day. In his last term at the Philadelphia Hospital he had only two cases of puerperal fever, one of which commenced twelve days after delivery. The history of Dr. Bernardy's cases shows an equal, if not better, antiseptic in the biniodide of mercury.

DR. J. V. KELLY, some years ago, had several cases of puerperal fever, and about twenty-five cases that got well. The trouble commenced in a case of abortion, in which he did not succeed in removing all of the placenta. He was at the same time attending a bad case of erysipelas, and at that time the relationship of puerperal fever and erysipelas was not known to him. He was on the point of giving up his practice and leaving the town, and he consulted Dr. Goodell on that question. Dr. Goodell discountenanced such action, but advised him, when attending an obstetric case, to remove his coat and roll up his sleeves, and wash his hands and arms well with turpentine, using the nail-brush thoroughly. Since that time he washes his hands in turpentine every day, and again before every case of labor. He also uses a wash of vinegar or carbolic solution before touching a puerperal patient. He has had no puerperal fever or other septicæmic symptoms since that time.

DR. PARVIN said, as a reference had been made by Dr. Montgomery to his having used corrosive sublimate vaginal injections in the cases of puerperal septicæmia under his care in the Philadelphia Hospital in his term of service last year, he would refer to the antiseptic treatment in the cases occurring the present year. When he took charge of the obstetric ward on the 1st of January, he found five recent cases of septicæmia. Two of these patients died. One of the two had apparently recovered, and then was attacked by pneumonia; quite possibly this pneumonia had a septic origin. Then there were at least seven other cases; but all these, as well as three of the original five, recovered. Injections of a solution of corrosive sublimate, 1 to 5000, were used; in all cases immediately after labor. The external parts were washed, too, with a similar solution. This injection was repeated twice a day, in all cases for the first week after labor; while it was used oftener in those having septicæmia. Intrauterine injections were used only when vaginal injections failed to correct the effusiveness of the discharge. But, as is well known, there may be serious, even fatal cases of septic disease, though the lochial flow is not at all offensive.

In private practice, after once washing out the vagina thoroughly with the antiseptic solutions immediately after labor, this need not be repeated unless symptoms demand it; but the bathing of the vulva twice a day with the solution ought not to be omitted. Add, if you please, to this treatment the use of antiseptic napkins, a practice pursued by Dr. Montgomery at the Philadelphia Hospital so successfully, and I think we have taken the most important means to guard against the entrance of septic germs after labor.

He has had no experience with the biniodide of mercury, and does not know that it will supersede the bichloride. The argument in its favor is as strong as these successful cases can make it; but these are entirely too few, as Dr. Bernardy justly says, to prove its value and its superiority. In one of the doctor's cases labor was induced, apparently, on account of eclampsia. Now, is this the best treatment? Obstetricians are by no means agreed, some of the best condemning such treatment. But the subject is not properly before us now, and therefore no further remarks will be made upon it.

DR. MONTGOMERY uses the bichloride solution as an external wash only, not as an injection. He thinks the records of the hospitals in which injections are used will not show as good results as those in which they are omitted, if septicæmia be not present.

DR. WILLARD had a warning to sound with regard to the use of bichloride solutions of stronger grades. He had been using washes and antiseptic dressings made with a 1 to 1000 solution of bichloride; but, in consequence of what was written about the advantages of stronger solutions, he increased the strength of his dressings to 1 to 500, and within twenty-four hours the stools contained bloody mucus, and were small and griping; there was vesication about the wound and around the limb under the dressings. Entirely dry dressings had been used, but they had been moistened

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by pus and serum from the wound. He does not see the advantage of using strong solutions in serum, as 1 to 100 or 75. The serum is a decomposable substance, and an uncertain portion of the antiseptic agent is destroyed by it. Weak solutions in boiled water seem more reasonable and answer every purpose.

DR. LONGAKER has been much interested in the third stage of labor, and would like to hear how Dr. Bernardy removed the placenta in the adherent case narrated by him. He has been using Credè's method with great satisfaction. He thinks the hand should be kept out of the parturient canal as much as possible. He does not use vaginal injections after labor, but depends upon outside washes. He finds that the temperature rarely rises during the puerperal period, even after instrumental delivery. He thinks care during the third stage will avoid the necessity for antiseptics.

DR. PARISH agrees with Dr. Parvin's views. He has found a solution of 1 to 1000 of bichloride irritating, and he now uses 1 to 2000 or 5000. Strong solutions cause an appearance resembling erysipelas or inflammation of the derma. Injections are not necessary in every case; when the surroundings are cleanly, and the patient a multipara, he does not use them; but in primipara with contusions or lacerations, and when version or instruments have been employed, he is in the habit of injecting a weak solution of bichloride, especially after delivery; he does not repeat it, but simply washes out the vagina; cleanliness of hands, instruments, and nurse is the most important point. He has never had any trouble in private practice.

DR. BERNARDY, in closing the discussion, remarked that he thought he had a far better antiseptic in biniodide than the bichloride. He had used the former in surgical cases also, washing out pus cavities, and always with good results. He does not use intrauterine washes in every case of labor. He has attended since the first of the year about seventy cases of labor, and he has employed the intrauterine injections in only the three cases detailed. In every case of labor he uses carbolic acid soap to cleanse his hands and arms and the external genitals of the patient. The eclamptic patient had reached or passed her full term, and there was no reason why the child should not be removed. In the case of adherent placenta it was pulled off forcibly, and a shreddy lining was left in the uterus, as no line of separation had formed. He believes the dangers consequent on passing the hand and arm into the uterus and vagina are much exaggerated, and he does not hesitate to do so when the exigencies of the case demand it.

NEWS ITEMS.

MORE WITHDRAWALS FROM THE CONGRESS.—We are requested to announce the following declinations of office under the new Committee: Drs. Hunter McGuire and S. P. Moore, of Richmond, Va., as Vice-Presidents of the Section of Military and Naval Surgery and Medicine, and Dr. James B. McCaw, of Richmond, Va., as Vice-President of the Section of Medicine; Dr. Le Grand N. Denslow, of St. Paul, as member of the Council of the Section of Dermatology and Syphilis.

We are informed that Dr. John L. Atlee, of Lancaster, has declined his appointment as Vice-President of the Congress, and that Dr. Joseph R. Smith, U. S. A., has declined to serve on the Council of the Section of Public and International Hygiene; Dr. E. S. Dunster of Ann Arbor, on the Council of the Section of Obstetrics and Gynecology; and Dr. Henry Sewall, of Ann Arbor, on the Council of the Section of Physiology.

THE DALLAS COUNTY (TEXAS) MEDICAL SOCIETY AND THE INTERNATIONAL MEDICAL CONGRESS.—The following preamble and resolutions were adopted by the Dallas County (Texas) Medical Society, in special session convened, July 25, 1885. The President S. D. Thurston M.D., in the Chair.

Whereas, The American Medical Association at its meeting in Washington City, in May, 1884, recognized a general desire of the medical profession of the United States, by adopting a resolution under which a committee was appointed whose duty it should be to extend an invitation to the International Medical Congress, shortly to assemble at Copenhagen, to hold its next meeting in 1887 at Washington City, D. C., and

Whereas, The said Committee, by the letter and spirit of this resolution, was fully empowered to act, not only as a Committee of Invitation, but as an Executive Committee as well, and

Whereas, The said Committee in pursuance of the objects of the above-mentioned resolution, and duly exercising the unlimited authority delegated to it, enlarged its membership and otherwise provided for the successful holding of an International Medical Congress at Washington City, in 1887, all of which arrangements were considered by us as judicious, and, contrary to what has been charged by some, wholly disinterested as to personal or local aggrandizement, and

Whereas, The American Medical Association at its last meeting at New Orleans, did, in our judgment, unwisely and untimely, virtually rescind its former action, which reactionary movement has deranged, if not indefinitely suspended, the work of the original Committee which was satisfactorily progressing, and created an indifference to the Congress among recognized leaders of medical thought and interest throughout the country, and

Whereas, There are those who persist in urging the so-called justice of their claims for the organization of the International Medical Congress on a territorial basis, which unfortunate idea has been unwisely further extended by some members of the profession in Texas in a manner calculated to arouse a sectional prejudice, which has little, if any, existence in our State; therefore be it

Resolved, That the Dallas County Medical Society deplores what must be considered the present interregnum in the affairs of the contemplated International Medical Congress, brought about, as we believe, by an ill-considered and hasty action at the New Orleans meeting before mentioned; that this Society was fully satisfied with the work of the original Committee, which was composed of able, eminent, and conscientious members of the profession; that this Society repudiates any attempt to inject a sectional feeling into a purely professional matter which has reference to scientific investigations only, and that said attempt, if offered in behalf of the medical profession of Texas, is, in the opinion of this Society, both unauthorized and gratuitous; and

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that looking beyond a narrow-minded policy of personal aggrandizement and sectional interest, we heartily commend the recent action of Philadelphia and New York brethren, as well as those elsewhere, who have retired from the Congress until a more dignified and unselfish view of the arrangements can be had; and we pledge them our hearty support and good will in their efforts to advance the interest of the American medical profession in future meetings of International Medical Congresses, where the truly representative medical abilities of our country shall be enlisted uncontrolled by geographical lines or personal preferences.

"THE ACTION OF THE AMERICAN MEDICAL ASSOCIATION ENDORSED."—We have before us a circular with the above heading, which, we are informed, has been widely circulated throughout this State. It is signed by Drs. Wm. H. Pancoast, Wm. B. Atkinson, and P. D. Keyser, and is as follows:

"The action of the American Medical Association, at its meeting in New Orleans, in April and May, and in the subsequent action of its Committee at Chicago, in insisting that only those in accord with the National Code of Ethics should become members of the Ninth International Medical Congress, to be held in Washington, D. C., in 1887, is most heartily endorsed; and we will personally do all in our power for the success of the Congress."

Appended to the circular is the request that, if it meet with approval, it be signed and returned to Dr. Pancoast's address.

THE SPECIAL MEETING OF THE COMMITTEE OF THE AMERICAN MEDICAL ASSOCIATION ON INTERNATIONAL MEDICAL CONGRESS.—We are informed that "The Committee appointed in accordance with resolutions passed at New Orleans, will meet in special session for the transaction of urgent business" at New York on September 3d.

PUBLIC OPINION ON THE CONGRESS ORGANIZATION.—So rapidly did the new nominees in one city after another—Philadelphia, Boston, Baltimore, Washington, and Cincinnati—declare that they would take no official part in the Congress under the new organization, that it became evident that the undertaking was doomed to ignominious failure unless a complete reversal of the New Orleans action could be secured. We have for some time been convinced that nothing short of that would satisfy the profession and restore any reasonable hope for the success of the Congress. We have felt, too, that this end was most likely to be accomplished by getting as full and prompt an expression as possible of the feelings of the profession. Of late it has looked as if these withdrawals, which at first threatened to confirm the wreck of the Congress, would really lead to the radical remedy we have mentioned.—*New York Medical Journal.*

The fact is unmistakable that the present organization of the International Congress seems gradually falling to pieces. Its best and most representative men have withdrawn. Opinions from the other side show that no confidence or sympathy will be felt in the position taken by the American Medical Association. It is useless to deny that, unless something radical is done, the Washington Congress will be simply a humiliation of American medicine before the world.—*New York Medical Record.*

Seldom has there been such unanimity of opinion upon any matter as we have seen expressed in the medical journals of this country on the proposed International Medical Congress. We need not repeat in detail the well-known story of the appointment of the original Committee by the American Medical Association, with plenary powers to prepare for the meeting of the Congress in 1887; of the opposition which the printed provisional list of officers and members of the Congress met with; of the movement set on foot to reorganize the original Committee, and thus give an opportunity for the admission of some of the discontents to positions in the Congress; of the reorganization of the officers and councilmen of Sections in Chicago in such a way as to distribute the appointments over a larger area of the Union, not failing to "punish" (as they say in politics) original members who had condemned the New Orleans movement, or were New Code men; how some of the active dissentionists were supplied with prominent places in the new organization; how the leaders of the original Committee were compelled by self-respect to resign, and the most prominent members of the original body in Baltimore, Philadelphia, and Boston, promptly withdrew their names, thus withdrawing from the Congress a considerable number of the ablest men in the country. It is a record painful to make, not only because it means that the Congress cannot now possibly be what it could have been under the first organization, but because it shows how large a share of medical politics can enter into the meetings of such a loosely constructed body as the American Medical Association, when designing members choose to exert themselves.—*North Carolina Medical Journal.*

That the recent action of the American Medical Association is sustained by parliamentary usage, does not in any way commend the expediency of its course in view of all the facts. An executive committee of seven most assuredly afforded a better prospect of efficiency in making "all necessary and suitable arrangements for the meeting of such Congress" than one of forty-five members, such as provided for, with the addition of thirty-eight to the original committee under the resolutions of 1884.—*Atlanta Medical and Surgical Journal.*

What will be the outcome of this deplorable muddle it is altogether impossible now to say. The Committee, aided by older and wiser heads than those who have hitherto directed its movements, may look back and find a path which will lead the Association out of its present dilemma, and up to the point of organizing a truly International Congress, alike worthy of its noble aims and of the great guild which bids it come to our land. If the Committee fails—especially if it fails through unworthy ambition, love of patronage, or, worse than all, through greed of office—it will realize before the business is finished, that wreckers are sometimes wrecked, and revolutions are often fatal to their leaders.—*American Practitioner.*

The policy of the Committee was broad and liberal, recognizing representatives of American medicine, regardless of residence and difference of opinion on matters of purely local interest. The Committee appointments, therefore, were made regardless of mem-

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bership in the American Medical Association and without respect to differences on questions of medical ethics. After all, the International Medical Congress, organized in the interest of medical science and medical philanthropy, feels no concern whatsoever in the professional policy or politics of the country where a meeting may be held. The work of the Committee, under the circumstances extremely delicate and difficult, was practically well done and, in the main, acceptably, we believe, to the American profession, as well as to a majority of the members of the American Medical Association. However, there were murmurs in various quarters.

Some complained of the Committee for exercising unwarranted authority. However this may be, we believe the Committee acted in good faith and in the interest of the International Congress. The language of the resolution, under which the Committee was constituted, is certainly very wide in its scope and may easily be interpreted as granting full executive power.

Others thought the Committee wanting in propriety to elect its own members to the most exalted positions in the organization. Why should the Committee have gone beyond its own membership, we ask, when its personnel comprised names historical in American medicine, honored by their countrymen and respected abroad?

More objected to the appointments of the Committee on the ground of an unequal sectional representation. "The North, the South, the East, and the West" were arrayed as if we were in the midst of a presidential canvass. This argument had its effect upon a few inflammable minds, but, fortunately, devotees to the science of medicine are not hedged in by sectional lines. We favor the appointment of men who represent American medicine, wheresoever they may reside, whether in the empire of Texas, in California, or in the cities of the East.

The real cause of all this discord arose from a feeling perfectly natural among men struggling for personal or professional preferment. There were not offices enough to go all around, and for this reason only, many men of unquestioned merit were excluded from official connection with the Congress. The justice with which some others were excluded we now realize more fully, since they have demonstrated so clearly their own unfitness for high official positions.

Already, it is painfully evident that it is simply impossible to organize the American meeting of the International Medical Congress upon the plan adopted by the Chicago Committee. Truly, we stand to-day a divided household, and unless some reconciliation can be effected, the failure of the Congress is inevitable.—*New Orleans Medical and Surgical Journal.*

The progress of another week presents a wide-growing distrust of the recent work of the Committee at Chigago. The withdrawal of the appointees of the Committee in Philadelphia, Boston, Baltimore, and Washington has been followed by similar resignations in Cincinnati, St. Louis, Chicago, and in other localities. These declinations have come not only from the gentlemen originally appointed by the first Committee, but, in a number of instances, the appointees of the present Committee respectfully decline to hold the honors awarded to them. Indeed, it seems to be quite apparent that the gifts of this Committee will go begging unless some unseen power is raised up to prop its waning fortunes. Under existing circumstances it seems clearly the duty of this Committee to abandon its work of reorganization as the most graceful and practical solution of the difficulties which embarrass it. By such a course the Committee would in no sense lose the respect of the American profession. It has been placed in a false position by the American Medical Association. It has been called upon to perform a duty which no similar Committee of the Association can perform under existing circumstances. The present status of the Congress is the result of a false and unnecessary issue which can work no good to the American profession or to the American Medical Association. Its introduction into this discussion was totally unwarranted and unjustifiable. The "Code" issue is not an issue which should be raised in the organization of an International Medical Congress. At previous meetings of the Congress all questions of medical politics have been rigidly excluded, and such should have been the case in the organization of the present Congress.—*Maryland Med. Journal.*

Perhaps it would have been just as well, in the interests of the Congress, had the New Orleans meeting left well enough alone. Unless the *status quo* of the Committee and its appointees before the New Orleans meeting be restored, the prospects of the Congress must be very gloomy. And its restoration is, of course, out of the question, for it behooves the American Medical Association to be consistent above all things, and, besides, it will be difficult to make it understand that its treatment of the original Committee and of the American medical profession, has been anything but eminently fair, honorable, and courteous. Many men of many minds.—*Medical Age* (Detroit).

We had supposed that the meeting of the American Medical Association recently assembled at New Orleans would gladly endorse the acts of its Committee, and say, Well done! Go on and complete the work you have so well commenced. But no, says a narrow clique of agitators, you have left certain States unrepresented, you have neglected the rural districts, and, worse than all, you have ignored a number of us bumptious soreheads, who are superlatively well qualified for the most responsible positions in the Congress. By some means a majority of those present were induced to vote for a resolution which practically censured the Committee, and added enough new men to govern the organization for the future.

We cannot help thinking that the method of procedure was, in all respects, unmanly, ungenerous, and unjust; and we sincerely sympathize with that large portion of the respectable body of the profession in the United States, who must feel keenly the humiliating position in which they have been placed. Already this sad business is bearing its bitter fruit. The respectable physicians of grand, conservative old Philadelphia have, in a body, formally declined "to hold any office whatsoever in connection with said Congress, as now proposed to be organized."—*Canadian Practitioner.*

The extracts from the American medical journals, which we print elsewhere, will be sufficient to show that the prevalent opinion in the States is, that the Washington Congress is not only in danger, but absolutely doomed to failure. The leaders of the profession, both

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in Boston and Baltimore, have followed the lead of the Philadelphians, and withdrawn from the Congress, and it is not unlikely that their example may spread to other cities, though, indeed, enough has already been done to turn the meeting of 1887 into what an American contemporary, drawing its illustration from our common history, appositely terms a "rump" Congress. The only hope is that the American Medical Association will be startled back to its senses by the strong and decisive action of the profession in Philadelphia, Boston, and Baltimore, and will make haste to retrace its steps. It may be taken for granted that not even the leaders of the malecontents, and certainly not the members of the Association at large, realized that the results of their action would be destruction to the Congress of 1887, and danger to its successors. Such an event was probably far from their calculations. They simply reckoned without their host, *i. e.*, their leaders, and if they are wise, they will cast another reckoning, this time with due regard to the said host.—*London Medical Times.*

The most recent advices from the United States have brought the startling intelligence that there exists in the American medical profession a very serious discord concerning the next International Medical Congress. We do not propose to discuss the etiology of this rupture, for it is quite enough to be called upon to face the fact that it exists. The fact is very grave. Its existence jeopardizes, if it have not already destroyed, the probable success of the forthcoming Congress. Certainly our brethren in the States cannot expect those who have already promised to attend and those who may expect to visit America at that time, to work with enthusiasm in the preparation of any scientific contribution while those whom they propose to visit are divided, and while wholesale secessions of the official executive and of well-known persons nominated to high offices are announced. Nor do we consider it to be either our duty or privilege to suggest a remedy for this exceedingly unpleasant dilemma. It seems to be conclusive that the profession in American at this moment is hopelessly divided on the subject. Already a large proportion of the influential and active scientific men of Philadelphia, such as Bartholow, Weir Mitchell, Da Costa, H. C. Wood, Pepper, Leidy, Stillé, Parvin, and Goodell, and David Yandell, of Louisville, have publicly withdrawn from the organization of the Congress. A like number of distinguished men in New York, such as Loomis, Roosa. Jacobi, Mundé, Agnew, and Emmet, have also either resigned or been dropped, and therefore will not cooperate with the present organization. The outlook, as the matter now stands, is not at all encouraging. One committee has reorganized the work of another up to the point near that of destruction. Moreover, the work of the present committee must be submitted to the American Medical Association in May, 1886; and no one can say to what extent it may also be either overturned or modified in such a way as to impede seriously the labor necessary to be performed before the meeting of the Congress in 1887. Altogether, the position is lamentable, and there is much fear that the acceptance of the invitation to meet in the States may be withdrawn, and the next meeting of the International Medical Congress be held in Berlin or some other great medical centre, pending the settlement of the serious dissensions among our brethren of the United States.—*Brit. Med. Jour.*

SENTENCE OF EX-SURGEON-GENERAL WALES.—The findings of the naval court-martial, before which ex-Surgeon-General Wales was recently tried, were made public this week. The Court sentences him to suspension from rank and duty for five years, on furlough pay, and to retain his present number in his grade during that period.

Dr. Wales was tried for culpable inefficiency in the performance of duty, and for neglect of duty.

THE ILLINOIS OFFICIAL REGISTER OF PHYSICIANS AND MIDWIVES.—The Illinois State Board of Health is now engaged in revising the "Official Register of Physicians and Midwives." Any notification of changes, omissions, or errors will be regarded as a favor, as the Board wishes to make the coming register as correct as possible.

Address communications to the Secretary State Board of Health, Springfield, Ill.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JULY 28 TO AUGUST 3, 1885.

DE WITT, CALVIN, *Captain and Assistant Surgeon.*—Promoted to Major and Surgeon, vice Bill, deceased, to take effect from July 21, 1885.

IVES, FRANCIS J.—Appointed Assistant Surgeon, with rank of First Lieutenant, to rank as such from July 25, 1885.

GIRARD, A. C., *Captain and Assistant Surgeon.*—From Department of the East to Department of Columbia.—*S. O. 170, A. G. O.*, July 27, 1885.

EBERT, R. G., *Captain and Assistant Surgeon.*—From Department of Columbia to Department of the East.—*S. O. 170, A. G. O.*, July 27, 1885.

TESSON, L. S., *Captain and Assistant Surgeon.*—Ordered from Fort Stockton, Texas, to Fort Davis, Texas.—*S. O. 90, Department of Texas*, July 27, 1885.

CARTER, W. F., *Captain and Assistant Surgeon.*—Ordered for duty as Post Surgeon to Fort Stockton, Texas.—*S. O. 90, Department of Texas*, July 27, 1885.

POWELL, J. L, *Captain and Assistant Surgeon.*—Assigned to temporaty duty at Fort Leavenworth, Kansas.—*S. O. 110, Department of Missouri*, July 30, 1885.

APPEL, A. H, *Captain and Assistant Surgeon.*—Ordered for duty with U. S. troops forming portion of guard of honor over remains of Ex-President General Grant, at Mt. McGregor, New York.—*S. O. 36, Division of Atlantic*, July 29, 1885.

GORGAS, WM. C., *Captain and Assistant Surgeon.*—Granted leave of absence for two months, to take effect about August 10, 1885.—*S. O. 169, A. G. O.*, July 25, 1885

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE-HOSPITAL SERVICE, FOR THE WEEK ENDING AUGUST 1, 1885.

FESSENDEN, C. S. D., *Surgeon.*—Leave extended ten days on account of sickness, July 27, 1885.

GODFREY, JOHN, *Surgeon.*—Granted leave of absence for thirty days, July 29, 1885.

IRWIN, FAIRFAX, *Passed Assistant Surgeon.*—To proceed to Richmond, Va, and Wilmington, N. C., as inspector, July 28, 1885.

AMES, R. P. M., *Passed Assistant Surgeon.*—Granted leave of absence for thirty days, July 27, 1885.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

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ORIGINAL LECTURES.

SOME FORMS OF MYELITIS, THEIR DIAGNOSIS FROM EACH OTHER AND FROM HYSTERICAL PARAPLEGIA.

Two Clinical Lectures delivered at the Philadelphia Hospital.

BY CHARLES K. MILLS, M.D.,

NEUROLOGIST TO THE PHILADELPHIA HOSPITAL; PROFESSOR OF DISEASES OF THE MIND AND NERVOUS SYSTEM IN THE PHILADELPHIA POLYCLINIC AND COLLEGE FOR GRADUATES IN MEDICINE, ETC.

(Reported by William H. Morrison, M.D.)

LECTURE I.

GENTLEMEN: We have in this great hospital, as those of you who have passed through its wards well know, illustrations of almost all forms of spinal disorder. Atrophies and hypertrophies, scleroses of every name and description, spinal traumatisms and pseudo-traumatisms, diseases functional and reflex, tumors, hemorrhages, and softenings, inflammations of the cord and of its membranes—throughout the whole list, are to be found here. Sometimes cases of almost every type will be within these walls at one time. Many of these forms of spinal disease are incurable. Of the cases which cannot be entirely cured, some, however, can be much benefited by treatment. In a hospital containing so many incurables, care and vigilance must be exercised, or cases that can be cured will be left to lapse to an uncalled-for fate, for want of recognition and treatment. Sometimes in private practice these cases, desperate but not beyond help, are passed by as incurable through ignorance, indifference, carelessness, or lack of thoroughness in investigation. If we had the time, I could give you illustrations of this fact drawn from experience, both outside and inside of the hospital.

The diseases to which I more especially wish to call attention during this and the following lecture are the different forms of myelitis and their counterfeits. I consider this subject of extraordinary importance to the general practitioner, largely because in some of its forms it is frequently a curable affection.

The term myelitis is applied to many disorders—forms of inflammation of the spinal cord. You may have a myelitis which is chronic or acute, which is generalized or localized, which is systemic, or mixed, or compound. You may have, in the technical language of the books of to-day, either poliomyelopathies or leucomyelopathies, which terms simply mean myelopathies, or spinal diseases, of the *gray matter*, from πολιός, "gray," or of the *white matter*, from λευκός, "white." You may have a diffused myelitis. The various forms of sclerosis are considered by some to be special forms of chronic myelitis, by others to be irritant morbid processes, intermediate between inflammation and simple atrophy[1]—but on this branch of the subject I shall not now enter.

[1] Althaus.

The first case which I shall bring before you, is one which has been in the hospital several months. It is an admirable illustration of

DIFFUSED MYELITIS FROM ARSENICAL POISONING.

The notes of the case have been carefully taken by two of the resident physicians, Dr. E. W. Evans and Dr. Alice M. Farnham.

Case I.—M., aged 35, had always enjoyed fair health until nearly one year ago, when, after a prolonged spree, he took a quantity of arsenious acid. Ten hours later, the symptoms of acute arsenical poisoning presented themselves. He was removed to a hospital and rapidly improved as regards the acute symptoms, but one week later he began to notice tingling sensations in the lower extremities. This was soon followed by loss of power in the legs, so that he was unable to stand. With this was associated a sensation as though the skin of the legs was distended with fluid, although no swelling was present. Loss of sensation from the knees downward was absolute.

In the upper extremities neither pain nor disturbance of sensation was present, but paresis, most marked in the extensor muscles of the forearms and hands, caused a bilateral wrist drop. Occasionally he had jerking of the legs, which was more liable to occur during sleep than when he was awake. This condition continued for about four months, when a feeling of formication made its appearance, and since then sensation has been gradually returning.

Three weeks after the poison had been taken, the feet assumed a brownish-yellow hue, and on being soaked, casts of the toes and soles of the feet came away. Desquamation of the hands also occurred, but not to so marked an extent. The finger- and toe-nails presented transverse white lines, but we cannot learn when these first appeared. The nails also became rough and deformed.

He was admitted to this hospital five months after taking the arsenic. General emaciation was very manifest, and wasting was advanced in the legs. The following are some of the measurements which were taken, both sides being practically the same: Thigh, 17¼ in.; calf, 11 in.; arm, 9¼ in.; forearm, 6½ in.

The paralysis of the extensors of the forearms was still marked. Loss of power in the hands was almost complete, but flexion at the elbow could still be performed.

The lower extremities were paralyzed from the knees downward, the patient being entirely unable to move the toes or feet. Movements of the leg on the thigh and of the thigh on the pelvis could be performed. The limbs showed a tendency to external rotation. The feet assumed an equino-varus position. The spontaneous jerkings of the limbs which had been observed at an earlier stage of the disease had almost ceased. At this time, he often complained of pain in the patellar region, which was sometimes so severe as to keep him awake.

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Desquamation of the hands and feet continued, but not to so marked a degree. The bowels were variable, sometimes requiring cathartics and sometimes astringents. Urine was passed freely and without pain; its specific gravity was 1020; it contained no albumen or sugar. The microscope revealed large quantities of amorphous urates, uric acid, oxalates, and pus cells.

Observations on the temperature of the skin were made, showing, for instance, that on the dorsum of both hands it was 84°, while on the dorsum of the feet it was 90.5° F. The patient usually complained of cold feet.

In some parts of the hand and forearm, the sensibility approached almost to hyperæsthesia. There was anæsthesia of the skin covering the knee, but over the anterior and posterior aspects of the leg sensation was present. In these situations the patient was abnormally sensitive to a pinch. The points of the instrument were indistinctly felt on the feet.

Heat and cold could be distinguished in all the fingers with the exception of the index-fingers of both hands. In testing the feet, it was found that cold could be distinguished in all except the fourth and little toes, while heat was recognized in all but the second toe.

Testing the paralyzed parts with weights, it was found that the feet could not feel the pressure of less than from one-half to two pounds. The right leg required one and one-fourth pounds, while the left could detect one-fourth of a pound, the hand recognizing a weight still smaller.

For three weeks after the acute attack, he had no sexual desire, although evidences of power existed; and both desire and power have since been present.

The morning temperature was taken for ten days after admission and averaged 98°; the evening, 99°, varying from 97.6° to 99.6° F. The pulse averaged in the morning 90 per minute, in the evening 100, varying between 82 and 110, and always being more rapid in the evening.

Investigation of the reflexes showed the plantar and patellar absent in both legs, the cremaster, gluteal, abdominal, and epigastric present, but weak; the scapular reflex about normal, and ankle clonus and gastrocnemial clonus absent.

Farado-contractility was about normal in the arms with the slowly and rapidly interrupted current. In both forearms the slowly interrupted current produced no contraction. With the rapidly interrupted current there was barely perceptible contraction, but the tingling [illegible]tly felt. In the right thigh the contraction to [illegible]as lessened. In the left thigh the reac[illegible]tion [illegible]ormal. No contraction could be produced in [illegible]ight or left leg below the knee, with either the rapid[illegible]ly interrupted current.

The muscles below the k[illegible]sponded feebly to a moderate galvanic current, the reac[illegible]s being markedly those of degeneration.

The patient has decidedly improved in some respects —in the use of his arms, in large movement of the legs, and in sensory disturbances, for instance, but his feet and legs are still paralyzed and show vaso-motor and trophic changes. Testing with the galvanic current, I can get only a feeble contraction, and that at anodal opening. The prognosis is doubtful.

This patient has had a generalized myelitis, an acute diffused myelitis which has become chronic, recovering in large part so far as the upper part of the cord is concerned, and in a less measure in the lower cord.

I present this patient at the start of the discussion of myelitis, because the case is one in which we know the exact mode of origin of the affection, and are able to study in the minutest detail the phenomena presented. The cause of the affection was poisoning with arsenic. About two years ago I gave an account of a number of cases of arsenical paralysis,[1] which occurred as the result of the wholesale poisoning of a family at Norristown, Pennsylvania. One of these was almost the counterpart of the case before you. The patient exhibited extensive paralysis, and reflex, vaso-motor, trophic, and sensory disorders in both upper and lower extremities, similar to and almost as complete as those here presented. He has made a good recovery and is now practising his profession, that of law. I have seen this gentleman within a few days, and the only symptoms left are a slight want of power in dorsal flexion of the feet, and a feeling as if the soles and one half of the dorsal surfaces of the feet were encased.

What I wish most to impress and emphasize with this case before us, are the differential diagnostic features of diffused myelitis, whether acute or chronic. You have here a history and a present condition which show involvement of all parts of the spinal cord in an inflammatory process—symptoms both of irritation and sensory impairment, in the pains, the hyperæsthesia, the anæsthesias, the changes in the power of recognizing pressure, cold, and heat; symptoms also of motor, vaso-motor, trophic, and reflex affections in the twitchings, cramps, paralysis, lowered temperature, nail-bands, mould-like desquamation, abolished knee-jerks, and advanced reaction of degeneration. Bowels and bladder have also been to some extent involved, as shown by the long-continued torpor of the former, and by the evidences of cystitis.

SUBACUTE OR CHRONIC GENERALIZED MYELITIS OF THE ANTERIOR HORNS.

Instead of having an acute, subacute, or chronic diffused myelitis, you may have an acute, subacute, or chronic inflammation of certain physiological regions of the cord, but let us pass at once to the consideration of another case, which I will have brought to the arena and will study before you. The history of the case is as follows:

Case 2.—M. M., æt. 33, white, widow; occupation, general housework; has had several children, and one spontaneous abortion five months ago. Her husband is dead, but was healthy. Her mother and several sisters died of phthisis; her father of typhoid fever. She had always been healthy until seven months ago, when she contracted chancroids. She was admitted to the Philadelphia Hospital two weeks later, and examination showed chancroids and fistula in ano. At this time her appetite was poor, she had lost some flesh, and was anæmic. While under treatment she was taken with diarrhœa, and was put to bed. About the time the diarrhœa was checked she began to notice burning pains in the palms of the hands and the soles of the feet, with swelling of

[1] Transactions of the College of Physicians of Philadelphia, third series, vol. vi., 1883. Also, Journal of Nervous and Mental Diseases, January, 1883.

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the parts. She also had burning pains down the anterior surface of the tibia and the posterior portion of the ulna and radius, and girdling pain in the lumbar region. Loss of motion in both upper and lower extremities was soon noticed, but no loss of sensation. The bladder and bowels were not affected. The nails of both fingers and toes presented well-marked white cross-lines. The left side was apparently most affected. Both the hands and feet were cold. Soon a tendency to rotation outwards appeared, and the feet assumed a talipes equinus position.

Until about four months since, she remained about the same, or possibly got a little worse. Since then she has slowly improved, with periods of partial relapse.

Without giving the history further, you will have observed, if you have paid close attention, that the woman was in good general health up to a certain period, when she contracted chancroids. She had not true chancres, and no secondary or tertiary syphilitic symptoms. Bear this point in mind, and do not be misled into making positively a diagnosis of spinal syphilis in this case. While in the hospital she had an attack of diarrhœa, and shortly after partially lost the use of the limbs.

So far as the upper half of the body is concerned, the improvement has been great. The pains have almost entirely disappeared. The transverse lines, as the nails have grown out, no longer are seen.

I will now examine the lower extremities. Looking at the limbs, the first thing which attracts attention is the position which they have assumed. You see the tendency to the equino-varus position—the turning inward and downward of the feet. This is present both in organic and in functional or hysterical disorders. In some recent works on spinal diseases, two pictures are shown side by side; one, of the position of the feet in a form of true myelitis; the other, the position in a hysterical paraplegic. In both, the patient sitting, the feet have assumed this peculiar inward-turning position.

Let us now test the power of motion. She can draw up both legs with the pelvic and some of the thigh muscles, without trouble. Examining the muscles below the knee, I find that, on the left side, she is unable to make dorsal flexion. A scarcely perceptible movement is made, but paralysis of the anterior tibial, peronei, and extensors of the toes is almost complete. She is able, to some extent, to use the gastrocnemius, soleus, and posterior tibial muscles. On the right side, there is only a slight attempt at dorsal flexion, but she can use the posterior group of muscles fairly well.

You observe complete absence of the knee-jerk on both sides, and also of ankle-clonus—but this is very rarely present when the patellar response is absent. A curious fact is that the skin reflexes are sometimes present when the other reflexes are absent. Some plantar reflex is here present.

As far as the general determination of sensation goes, she feels the æsthesiometer in the soles of the feet and elsewhere. The skin seems to retain its sensation. She can discriminate the compass points fairly well. Impressions reach the brain promptly. In this hospital are cases in which from two to fifteen seconds, or even more, are occupied in the transmission of impressions from the periphery to the brain. This is due often not so much to loss of sensation at the periphery, as to morbid obstacles—nodules of sclerosis, for instance—in the highways over which the impressions are carried. In this patient, however, I cannot determine any retardation of the conduction of sensation.

The electrical condition in such a case should always be carefully studied. It is one of the three or four most important diagnostic indications. The tests will be made before you, the farado-contractility first engaging our attention. One electrode is to be applied to an indifferent spot—that is, to one not connected by nervous channels with the muscles which it is desired to test; also to a spot not too near. It may be placed on the sacrum or on the sternum. The second electrode is to be applied to the supplying nerve-trunk, to the motor point, or to the belly of the muscle. I now test the farado-contractility of the tibialis anticus, the extensor digitorum communis longus, the extensor hallucis, and the peroneus longus and peroneus brevis muscles. A movement is produced as the current-strength is increased, but it is not the physiological movement of these muscles. The foot is extended and adducted. This is due to the extra polar diffusion of the current inducing contraction of the posterior group of muscles—the gastrocnemius, soleus, and posterior tibial. Farado-contractility is present in this muscular group, but the muscles under trial give no movement. It is an important practical point to remember that in testing the electrical state of certain muscles, while these may not respond, others close by may contract, and thus mislead the operator.

In determining the reactions to galvanism, a battery of from twenty to sixty cells is required. A few minutes suffice for a general diagnostic determination of this point, but a much longer time is needed for a minute record of the electrical condition. Two electrodes are used. One is the ordinary sponge electrode; the other may be like this in my hand, which is a carbon electrode covered with chamois, and provided with an interrupting handle. The pedal electrode of Dr. Morris J. Lewis, of this city, is a most convenient instrument when you have no assistant. The sponge electrode is to be placed at an indifferent spot, and a general determination of galvano-contractility made. It is almost absent in the same groups which showed entire absence to faradism. Having determined this, the reactions of degeneration are sought. In healthy nerves and muscles a certain definite response is obtained according as the current is closed or opened at cathode or anode with a current of medium strength—*i. e.*, one just capable of causing fair contraction. You get the best contraction with the closure of the cathode. Next, in actual experience with patients, comes anodal closure, although anodal opening is second physiologically. Anodal opening is third; and, finally, we have cathodal opening, which, with a current of ordinary strength, would cause no movement. Any reversal of this order indicates a reaction of degeneration—for instance, if with a current of medium strength the anodal closure contraction is greater than cathodal closure contraction. If the anodal opening contraction is greater than either of the two just mentioned, you have a still more marked reaction of degeneration. If you get that which is obtained only when the muscle is doomed, viz., cathodal opening contraction the most marked, you have a complete reversal of the normal formula. It is not my intention to dilate fully on this topic, but I simply want to say enough to enable you to understand this case. I

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will test the paralyzed muscles of the leg, applying these principles. No contraction is visible in the anterior muscles below the knee on cathodal closure or opening. The latter, of course, we did not expect. There is slight contraction on anodal opening and closure. Reactions of degeneration are present.

What is the nature of this case? Here are motor paralysis, complete absence of tendon responses, with retention of the skin reflexes; and vaso-motor and trophic changes, as indicated by the color of the skin, change of temperature, and by some wasting; absolute loss of farado-contractility, and marked reactions of degeneration. No anæsthesia is present. This is undoubtedly, in the first place, a case of organic disease. It is, secondly, a spinal affection. The trophic, motor, and reflex disorders, and reaction of degeneration, show that it is an affection of the anterior horns of the cord in large part, if not altogether. It is a case of generalized disease of this region, as both arms and legs have been affected. [This case, since the delivery of the lecture, has made a complete recovery, chiefly under the use of heat and cold to the spine, ergot, mercury, bromides, iodides, and galvanism.]

This disease is not seen often in clinics, but it is of great importance, and not extremely rare. The best name for it is *subacute or chronic generalized myelitis of the anterior horns*. The name gives at once the features of the disease. It is one of the diseases which Duchenne described under the head of *general subacute anterior spinal paralysis*. It is also known as *subacute or chronic anterior polio-myelitis*, and *chronic atrophic spinal paralysis*. It is one of the forms of spinal adult paralysis, but the best names are the first or the last.

I shall take this disease as my standard of comparison in discussing the problems of diagnosis which I have chosen as our topic for these lectures. I do this because of its clear and definite characters, and because, also, it is particularly liable to be confounded with other forms of myelitis and with hysterical paralysis.

Before, however, going on with the discussion, let me read to you the history of another case of the same affection. This was a private patient, a highly intelligent lady, who wrote out for me an account of her case from the beginning. The record is particularly interesting because of the details as to subjective symptoms —details which we are not usually able to obtain in reliable form from the ordinary run of hospital patients.

Case 3.—A young lady, recently married. Her first feeling of sickness came on with fever, severe headache, nausea, and pains in the back and limbs; finally resulting in a steady fever of a typhoidal type. Her only recollections of that time were of terrible sinking spells, and a constant feeling of prostration. She was confined to bed for two months, and one month later went for a week to the seashore. She felt perfectly well while there. It was, however, rainy and damp all the time.

Shortly after her return, she found that the slightest exertion, either in riding or walking, tired her and brought on pain in the left lumbar region extending down the leg to the foot. About five years before this, she had had an attack of "gravel," and since then had been subject, at different times, to pain in the left side and leg.

Two months after convalescing from the fever, and six weeks after returning from the seashore, she was attacked with nausea, severe pain in the stomach, and diarrhœa, which lasted about three weeks. About this time the pain in the loins began, on both sides (although the left side was always the most painful), and was so severe that the only relief she had was when under the influence of hypodermics of morphia. This trouble lasted about four weeks. She also at this time had an excessive irritation of the skin. Although it was in July, and the weather exceedingly hot, she felt cold all the time. It seemed impossible to keep warm. She almost constantly had cold chills, as if some one was pouring ice-water over her. Her limbs also jerked constantly in her sleep. Her feet had a numb feeling.

She was taken with spasms, slight at first, but gradually increasing in strength. They lasted two weeks, and then ceased for a week, when one came on, just after taking a hypodermic to relieve the pain in the small of the back. This was the last spasm she ever had, as well as the most severe. Her nurse said that she was totally unconscious in it, and that her feet were drawn almost to the back of her head, her mouth also being drawn to one side. After that her feet and limbs began to pain her and to be very sensitive to the touch, the pain gradually increasing until the agony became almost indescribable, especially in both great toes, the pain feeling "as if some one was forcing a large pin under the nail, and tearing it from the flesh."

She lost the power of walking, or even standing, and for about six weeks was obliged to lie on her back, as it seemed to increase the pain to lie on either side. Her hands and arms also pained her, although not nearly so much as her feet and legs. She, however, also lost the power of using the hands and arms, and was obliged to wear gloves, as the sheets, and in fact everything that touched her, felt so uncomfortably cold. This cold feeling lasted with her for three months. About the time her feet began hurting her the pain in the small of her back ceased.

About the first of August, a little more than two months after the onset of her attack, she found she could not put her feet to the floor; the blood rushed to them so that they were almost of a purple color. From the first time her feet began troubling her, the pain never for one instant left them. She nearly lost all power in them, and the soreness still continued in her feet, and as far up as her knees. She also suffered great pain in the hips, and at the lower end of the backbone. Her muscles contracted, so that she could not straighten out her feet, which at one time were very much curved.

The pain only began to be noticeably less severe about seven months after her last illness began. And on the first day of February she stood alone, the first time for nearly eight months; and on the tenth day of the same month walked a few steps with the help of a Darrach wheel crutch, although the muscles were still so contracted under her knees as to cause her great pain whenever she attempted to walk. After this she began slowly but surely to improve, and in about six months was entirely well.

For several months, after using much exercise, and also toward evening, the limbs would burn and throb very much, and the only relief found was in having them rubbed.

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This patient was under my care, in conjunction with other physicians, for several months, until her recovery. Beside the symptoms, as above enumerated by herself, she had lost knee-jerk for both sides, and the reactions of degeneration. Ergot, belladonna, morphia, bichloride of mercury in small dose, iodide of potassium, massage, and Swedish movements, with galvanic electricity, were the agencies chiefly used in her treatment. These measures, with rest, cupping, and the alternate application of ice and hot water to the spine, are chiefly to be depended on in the treatment of myelitis.

ORIGINAL ARTICLES.

HARD CHANCRE OF THE TONSIL.

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THOUGH hard chancre of the tonsil is by no means so infrequent as was formerly supposed, its etiology, symptoms, and appearance are so variable, and its positive diagnosis often so difficult, that the case given below may justify a résumé of the subject as it stands to-day; particularly, as I find in English nothing beyond mere records of cases.

The patient, a prostitute, æt. 29, presented herself at my clinic April, 21st, complaining of sore throat; and gave me the following history: At sixteen she had a sore on her genitals, and was treated, she said, by a physician now dead, for syphilis, who after a time pronounced her cured; at any rate, no constitutional symptoms had at any time developed. She remembered no particulars of her sickness, so many years having elapsed, and could give me no further information beyond the statement of her physician as above.

Having been ill with peritonitis in the University hospital during February, and having suffered constantly with great pain and tenderness over the abdomen since her dismissal in March, she had been unable to ply her vocation, and told me she had had no sexual connection whatsoever since January 28th. In the house to which she returned after her acute illness, there was a man who was suffering from a severe attack of syphilis, with "sore throat and sores in his mouth." Both she herself and the only other woman in the house were fully aware of his condition, having been warned by him not to use his tumbler, knife, etc. Fearful of contracting the disease, my patient had taken pains to avoid using any thing that he might have touched, but had on several occasions, when "skylarking," kissed him in the mouth again and again, and though she would not confess it, resorted, I fear, to disgusting practices. Early in April her throat became sore and uncomfortable on swallowing, and a few days later she noticed a sore on her upper lip. Her throat had gradually become worse until she was led to seek relief.

On examination, the lesion on the upper lip was found to be a superficial erosion with a reddened, densely indurated base discharging a scanty serosanious fluid, and was beyond doubt a hard chancre. The lesion upon the left tonsil, in whose character we are more deeply interested, was a ragged pultaceous ulcer, grayish-white, and not deeply excavated. The tonsil itself was somewhat enlarged; owing to the situation of the ulcer and the natural resistance of the hypertrophied gland the exact degree of induration could not be determined; some glandular enlargement on the left side was present.

There was finally much doubt as to the exact nature of this tonsillar lesion. Was it a primary sore or a secondary manifestation following the sore on the lip? The case was referred to Prof. I. E. Atkinson, of the University, who declared both the sores to be hard chancres. Whether it was also a case of *reinfectio syphilitica* it was impossible to say in the absence of more positive proof of a primary infection of syphilis thirteen years before.

The patient was put upon antisyphilitic treatment and the week following returned with a well-marked roseola and adenopathy, and complained of general malaise, feverishness, loss of appetite, and headache. It was, I think, exactly two weeks later, May 12th, when I saw her again, at which time her hair had begun to fall out and she was suffering considerably with syphilitic arthritis. The tonsil sore had in the mean time healed, leaving a distinct scar, with more or less hypertrophy and hardness of the gland; the labial sore was also much improved.

Under the same treatment the patient has continued to improve, though when last seen there was considerable syphilitic erythema of the palate and both lingual and buccal mucous patches had made their appearance.

Such being the complete history of the case: 1st. The great doubt that the woman had been affected with syphilis in her youth. 2d. The fact that she had been unable to have sexual connection for nearly four months owing to her illness. 3d. The unquestioned exposure and the character of the patient. 4th. The almost simultaneous appearance of the two sores and their physical characters, and finally, the full outbreak of secondary syphilis, would seem to confirm our diagnosis beyond a doubt.

Referring now to the points of interest in this case, the labial chancre needs no comment. The possible reinfectio syphilitica is interesting certainly, but the patient's statement alone as to her first attack is hardly sufficient, and it is unfortunately not now possible to corroborate her statement, the physician who treated her having since died. In view, however, of the interest attached to such reinfection, the following references are given, for in them the subject is thoroughly discussed: Neumann,[1] ———,[2] Arning,[3] Bosetti,[4] Diday,[5] Rollet,[6] Mallet,[7] Sturgis,[8] Vidal.[9]

When we consider the number of cases reported

[1] Ueber Reinfectio Syph., Wien. Med. Presse, xxv. 1 to 6, 1884.
[2] Reinfectio Syph. in due Conjugi, Lo Sperimentale, xlix., Firenze, 1882.
[3] Ein Fale von Reinfectio Syph. Vrtlgsche. f. Dermat., x. 92, 1883.
[4] Chancre induré devél. deux fois chez le méme individu, Arch. Med. Belges., xxxi., 1863.
[5] Du chancre produit, etc., Gaz. Méd. de Lyon., xi., 1859.
[6] Du chancre produit, etc., Ibid.
[7] Deux cas de Syph. double. montpel. Med., xlvi., 1881.
[8] A Second Infection of Syphilis. Am. Jour. Med. Sc., Phila., vol. 83, 1882.
[9] Monit. des Hôp. de Paris, 1, 1213, 1853.

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since 1860, it seems strange that in all French literature there is no case of hard chancre of the tonsil on record previous to this date. As late as 1852 Velpeau declared that this particular lesion seemed impossible, and after him other writers, among them, Vidal de Cassis[1], Martelliere[2] (though the latter admitted the possibility of it), Buzenet,[3] Melchoir Robert,[4] Fournier[5] (in 1856), and Gibert,[6] though they give many hundreds of cases of buccal, make no reference to tonsil chancre.

Fournier (in 1860) was the first to observe and put on record a definite case of chancre of the tonsil, which was one of 77 cases of buccal chancre observed by him. In the following year, Diday[7] reported eight cases and in an elaborate treatise was really the first to give this lesion a definite place in the history of syphilis. Belhomme et Martin,[8] and Rollet[9] described tonsil chancre with cases, while in Desnos,[10] we find a long account of the same and of its complications. Gondouin[11] reports one case; Mauriac[12] and Julien[13] several; the latter describes with great care the initial lesion, its shape, the grayish-white discharge with which it is covered, its regular edges, its slow evolution. We find four cases reported by Hulot;[14] two by Schiragew;[15] four by Boeck;[16] one each by Spillman,[17] A. Hue,[18] Paul Hamonic,[19] Lavallée,[20] Brocq,[21] Merklen,[22] and Thomaschewsky;[23] Taylor[24] reports three from his own practice, one from that of Dr. G. H. Fox, and one from that of Dr. Wigglesworth, of Boston; Knight[25] gives two; Legendre[26] and Pivaudran[27] several of their own observation; and Morell Mackenzie[28] seven.

Such being the history of hard chancres of the tonsil, I shall proceed to give the etiology and physical signs, the functional symptoms and the diagnosis of chancre in this situation. I have not been able to give the exact number of cases reported by each writer, several of the papers referred to being unavailable, and, after all, the exact number is not of particular importance, for it would not enable us to get at the comparative frequency of chancre of the tonsil.

1 Traité des mal. Vénériennes, Paris, 1853.
2 De l'Angine Syphilitique. Thése, Paris, 1854.
3 Des chancres d. l. bouche et d. l. diag. différential. Thése. Paris, 1858.
4 Mal. Vénérienne, 1861.
5 In leçons sur le chanchre, par Ricord.
6 Traité prat. d. mal. d. l. peau et l. syph., 1860.
7 Comptes rendus Soc. Méd. de Lyon, pp. 45-70, 1861-62.
8 Traité de path. vénérienne, 1864.
9 Traité des mal. vénérienne, 1865.
10 Dict. de méd. et de chirurg. Prat. Vol. ii.
11 L' Union Médicale, 13 April, 1869.
12 Leçons sur maladie vén., p. 144.
13 Traité des mal. vénérienne, 1879.
14 Ann. de dermat. et syph., 1st. t. x. p. 29.
15 Petersb. med. Wochen., p. 39, 1880, and Vertljhrch. f. Derm. und Syph., 1881, p. 127.
16 Tidskrift f. prakt. Med., No. 13, 1883; and Monat. f. prakt. Dermat. 2, p. 317, 1883.
17 London Med. Record, p. 282, 1879.
18 La France Méd., vol. i. p. 752, 1883.
19 Ann. de derm. et syph., Aug. 1882.
20 Ibid, Jan. 1883. 21 Arch. gén. de Méd., Jan. 1884.
22 Ann. de derm. et syph., iv., 1880.
23 Wiener Med. Presse, No. 34, 1884.
24 N. Y. Med. Journ., May 24, 1884.
25 Ibid., June 24, 1884.
26 Arch. gén. de Méd., 1. 292, 1884.
27 Pivaudran, Thése de Paris, 1884, No. 338.
28 Dis. of the Throat and Nose, vol. i. p. 200.

Fournier, however, found one in 471 cases of chancre in different localities, and one in 77 of buccal chancre; while Diday in 671 chancres in various situations found not a single one back of the anterior pillar of the fauces. Morell Mackenzie has seen but seven in his great experience.

Theoretically, tonsil chancre should be more common among women than among men, and Morell Mackenzie's experience confirms this idea, for out of the seven cases seen by him, six were in women. Rollet[1] also found chancre of the mouth more common among women, and Ricord, in five years, saw one mouth chancre in 389 men, and two in 199 women. Diday and Desnos find no reason for thinking mouth and tonsil chancre less common in men, but after a careful examination of the separate cases given above, I think we are quite justified in concluding that chancre of the tonsil is more frequent in women than in men.

It is not necessary to describe the cause and mechanism of mediate or immediate contagion; those interested may consult the works of Diday and Desnos referred to above; suffice it to say that kissing is a fruitful source of contagion, when one or the other person is suffering from a manifestation of mouth syphilis, and disgusting practices also which need not be described.

In young children, chancres of the mouth often arise from taking the milk from the breast of a syphilitic woman, and Wigglesworth[2] tells of a medical student who put his mouth to that of an asphyxiated newly born child and inflated the lungs several times. One month later a hard chancre developed on his right tonsil. Knight,[3] too, tells of a lady who contracted a chancre of the tonsil by using the same tooth powder as her nephew, who was suffering from secondary syphilis. Again, the contagion is carried from one person to another by means of instruments, by knives, forks, glasses, and other household utensils used by more than one person; by nursing bottles (see case by Spillman[4]); by cigar stumps;[5] etc.

But of all the non-venereal causes of chancre of the tonsil, one of the most curious methods of infection is through the tube used by glass-blowers. Rollet, in 1858, was the first to call attention to this mode of contagion, having observed the epidemic at Rive-de-Giers. And later, Guinaud[6] published an elaborate paper describing epidemics at various places and giving the exact method of contagion, viz., the passage of the piece of glass as it was being blown into shape from mouth to mouth, of the glass-blowers. At present each workman has his own mouth-piece.

The objective and subjective symptoms of chancre of the tonsil vary so greatly, and its situation is so remote that it often passes unobserved, and when seen is not diagnosed. In this connection Taylor remarks "that there is little doubt that some cases of the *syphilis d'emblée* or *larvée* of the French were really instances of tonsillar infection." Primary chancre of the tonsil, when situated in the *pharynx*,

1 Dict. Encyclop. 1st série, t. xv. p. 364.
2 Quoted by Taylor, loc. cit. 3 Loc. cit.
4 Ann. de derm. et syph., x., 1880.
5 Bulkley, Arch. Derm., Phila. 1879, v.
6 Syphilis des Verriers, Lyons Méd., 1880.

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is most always found upon one of the tonsils, owing, no doubt, to the structure of these glands, the lacunæ of which are prone to receive and retain the syphilitic virus. Tonsil chancre is usually unilateral, Rizat,[1] however, saw a young woman who had seven chancres in various places, with one on each tonsil, and Rollet also one with a hard chancre on each tonsil.

Tonsil chancre generally begins with slight redness and swelling, without perceptible induration of the gland. In a few days there is pain on deglutition, an increase in the redness and hypertrophy, soon followed by a superficial erosion with increased induration of its base, and more or less, though constant adenopathy on the affected side. A most important sign is the hypertrophy and general tumefaction of the tonsil gland itself, which would seem to be a constant accompaniment of tonsil chancre. This syphilitic hypertrophy of the tonsil will be found minutely described by Hamonic.

The second important sign is the superficial erosion, increasing to an active ulcerating surface, covered usually with a grayish-white coating, thicker or thinner as the case may be. Again the coating is granular, and somewhat irregularly distributed over the surface of the ulcer. Sometimes, however, the erosion at first is very slight and superficial, as in a case by Diday. On the other hand, the lesion may assume the phagedenic form of a deep, sloughing ulcer, with great tumefaction of the neighboring parts. This last form of ulceration would seem to be a rare complication of tonsil chancre, though cases of such extensive ulceration are reported by Brocq, Mauriac, and Rollet.

The third and most important sign of hard chancre here, as elsewhere, viz., induration of its base, is always present, though not always in the same degree, the amount of induration depending on the amount of hypertrophy of the gland before the development of the chancre. The less the chronic hypertrophy, the less the induration, and vice-versa. Induration of the base may, indeed, be the only sign on which to base a diagnosis of primary infection, as in the case reported by Hue.

The next important sign is the well-marked and early submaxillary adenopathy on the affected side. The engorgement is hard and indolent, and may become very great. Resolution would seem to take place in all cases without suppuration, and the submaxillary adenopathy is much more painful than the inguinal engorgement following genital chancres.

Diday thought the duration of tonsil chancre shorter than that of the primary sore in other places.

The functional symptoms of hard chancre of the tonsil are generally slight, and often an outbreak of roseola is the first intimation the patient has of his trouble. See a case reported by Mauriac.

There is generally, however, pain on deglutition. According to Rollet, among chancres of the mouth, those behind the anterior pillar are the most painful. It is in cases of phagedenic ulceration that the pain is greatest, and swallowing becomes impossible, the breath very fetid and the patient extremely prostrated.

[1] Quoted by Legendre, loc. cit.

Cohen[1] says, "Chancre of the tonsil is usually soft." I hesitate to disagree with so high an authority, but after going over a mass of literature on the subject, I am unable to corroborate the statement.

The diversity in appearance and form of chancre upon the tonsil, the absence of functional symptoms, the very situation of the lesion, and oftentimes the denial of the patient, render the diagnosis of this trouble very uncertain. It is to be differentiated from epithelioma; from psoriasis of the mouth; according to Cohen, from the milky patches of smokers and from tuberculous ulcerations; from mucous patches and the perforating, cone-shaped ulcer of tertiary syphilis; from diphtheria (according to Pivaudran); from gangrenous angina of the throat; and from ulcerating gumma of the tonsil gland.

It would seem that a diagnosis between chancre and epithelioma in a case where there is considerable tonsillar hypertrophy, with an ulcer covered by a granular deposit, and where there is a negative history and the patient old, is by no means easy. An interesting case of this kind is given by Merklen.[2] The patient was a man, æt. 64, who had been suffering for two months with a tumor on the left side in the parotid region.

On examination the left tonsil was found to be greatly hypertrophied, hard, and more or less lobulated; there was an extensive granular ulcer, covering nearly the whole surface of the gland; the neighboring parts were infiltrated and hard; there was considerable pain on deglutition and inability to swallow solids; and finally, there was absolutely no history of past or recent syphilitic infection. A diagnosis of cancer was made. Prof. Verneuil, on further examination, pronounced it a case of primary chancre, and shortly after there followed an outbreak of secondary symptoms, which, with the ulcer in the tonsil, rapidly improved under antisyphilitic treatment.

Cases may arise then, where the diagnosis is difficult, and as it is a point neglected by the author[3] in a paper on epithelioma of the tonsil, he is glad to take this opportunity to give the principal signs and symptoms of these two diseases:

SYPHILIS.	CANCER.
Functional Symptoms.	*Functional Symptoms.*
Deglutition and swallowing painful, but rarely impossible, with freedom from pain when the parts are at rest.	Difficulty and pain in swallowing the first and constant symptom, increasing until it is impossible to take food. Lancinating pain referred to the ear.
Physical Signs.[4]	*Physical Signs.*
Some hypertrophy with early superficial ulceration in primary sore. The tertiary ulcer perforating and cone-shaped. Comparatively slight glandular enlargement, not painful, and subsides with the cause of the irritation.	Great hypertrophy, later widespread ulceration. Considerable glandular enlargement and induration, which become very painful, and do not disappear.
Hemorrhage rare.	Hemorrhage frequent.
Slight emaciation.	Great emaciation.
Amenable to treatment.	Not cured by any treatment.

[1] Diseases of Throat, Phila., 1870, p. 120.
[2] Ann. de dermat. et syph., Paris, 1881, 2 s., ii. 673.
[3] N. Y. Med. Record, March 8, 1885.
[4] Lennox Browne, Trans. Lond. Path. Soc., p. 407, 1879.

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Tonsil chancre may, under some circumstances, be taken for a mucous patch, whose favorite seat would seem to be upon the surface of the tonsil; and this is more likely to happen when the patient is seen for the first time, and secondary symptoms have already manifested themselves, and an ulcer still remains upon the tonsil; or when there is hypertrophy of the tonsil, with an active, and by no means superficial, ulceration of the mucous patch. The mucous patch, however, always follows the roseola; and the patch is, as a rule, superficial and of characteristic appearance, etc. To determine finally between a chancre and a mucous patch upon the tonsil Diday says: "Cauterize the ulcer twice at an interval of five days, and, if it is a secondary ulcer, it will disappear; if a primary, hard chancre, it will not."

Pivaudran thinks that primary chancre may be confounded with diphtheria; but the course of the two diseases is so unlike that such a mistake is hardly likely to occur.

In exceptional cases chancre of the tonsil is complicated by an extensive slough. The presence of a grayish ulcer, surrounded by an œdematous circle, with inflammation of the surrounding parts, points strongly to a gangrenous throat affection, either of a syphilitic origin or a primary gangrenous angina, such as is described by Gubler and Trousseau.

The limitation of the ecchymotic spots, and the absence of its propagation to the pharynx, palate, and larynx, and the general course of the affection, with the appearance or non-appearance of secondary eruption, will settle the diagnosis.

Ulcerating, gummy tumor of the tonsil is distinguished from chancre by a deeper ulceration, and by its dug-out edges. According to Legendre, a good differential sign is the existence of an erythema and peripheral engorgement, which are never found in gummy tumors, but always present in throat chancre. Further, a knowledge of the patient's antecedents will be of great value.

Finally, if the lesion upon the tonsil has been of slow, unilateral development, is superficial, with grayish-white deposit; if there is a history, or even suspicion of syphilitic exposure; if there is glandular enlargement; if the sore on the tonsil appeared from fifteen days to three weeks after exposure, and there is absence of chancre elsewhere; if the patient has not been subject to simple tonsillar angina; if the pain is on the affected side, has lasted for some days or weeks, and has not excited febrile reaction, and the whole is followed in due time by an outbreak of secondary symptoms, certainly we are justified in a diagnosis of chancre of the tonsil.

RECENT RESEARCHES ON THE REDUCING SUBSTANCE OF NORMAL URINE.

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THE question whether normal human urine does or does not contain glucose, has been the subject of extended discussion and numerous elaborate investigations, but the results have for the most part intensified the obscurity with which the problem has been surrounded. Careful and trustworthy observers have ably advocated the opinion that small proportions of glucose are constantly present in the urine, and have based their conclusions on the indications afforded by the dextrogyrate property of urinous extracts, by the slight reducing action exercised by nearly all specimens of urine on Fehling's and similar solutions, and by the fermentation under the influence of yeast. All efforts to isolate the glucose in substance have failed, notwithstanding enormous quantities of urine have been subjected to the necessary operations, and it is difficult to understand how appreciable proportions—the normal excretion has been placed as high as one, and even two grammes per day—could disappear during the attempts at extraction.

Experimenters who have not accepted as conclusive, the results furnished by the ordinary tests, have therefore sought, in the presence of an unknown substance, an explanation of reactions so closely simulating those of glucose. With regard to these tests, it may be said that of the substances possibly or probably existing in the urine, glucose is by no means the only one which would rotate the plane of polarized light and which possesses reducing properties; greater weight would attach to the fermentation test, but in addition to the fact that this method has yielded results indicating an exceedingly minute proportion of glucose, it must be considered that the yeast-cells alone are capable of producing a certain quantity of carbonic acid gas, and that this gas is disengaged in small quantity by urine to which no yeast has been added. If, then, it can be shown that normal urine contains constantly another substance which will reduce cupro-alkaline solutions, and which is dextrogyrate, there can remain no ground for assuming the presence of glucose.

In 1875, Von Mering and Musculus[1] found that the ingestion of chloral hydrate was followed by the appearance in the urine of a still then unknown levogyrate acid; this compound, which was named urochloralic acid, was made the subject of elaborate investigation by Külz,[2] in 1881, and again in the subsequent year by Von Mering,[3] who found also that butylchloral hydrate is eliminated in the urine as urobutylchloralic acid. In the meantime Jaffé[4] had in 1878 discovered that orthonitrotoluol is converted in the organism not only into orthonitrobenzoic acid, which would be the oxidation product naturally expected, but principally into an optically active acid that decomposed readily into urea and a new acid which he called uronitrotoluic. The latter can without difficuly be dehydrated by boiling with dilute sulphuric acid; it then loses a molecule of water, and is converted into orthonitrobenzyl alcohol and an acid which Jaffé was unable to isolate. He, however, attributed to it the composition $C_1H_{10}O_7$, and considered that it formed with the orthonitrobenzyl radical a conjugate compound resembling a glucoside. Although he could not verify by analysis the composition of this quasihypothetical

[1] Von Mering and Musculus, Berichte der Deutsch. Chem. Gesellschaft, viii. 662.
[2] Külz, Centralblatt für die med. Wissenschaften, 1881, 337.
[3] Von Mering, Zeitschrift für physiologische Chemie, vi. 480.
[4] Jaffé, Zeitschr. für physiolog. Chemie, ii. 47.

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acid, he did not hesitate to consider it as the common basis of a group of compounds, including his uronitrotoluic acid, the urochloralic acid of Von Mering and Musculus, the urobutylchloralic acid of Von Mering, and an optically active substance obtained in large quantity by Wiedemann[1] from the urine voided after the administration of camphor. All of these substances are levogyrate; all are capable of reducing cupro-alkaline solutions by the aid of heat, and all are decomposed after the manner of glucosides by boiling with dilute sulphuric acid.

The hypothetical acid of Jaffé was isolated, studied, and analyzed in 1880, by Von Schmiedeberg and Meyer, who found that it possessed indeed the composition indicated by Jaffé, and that camphor is eliminated in the urine as one of its conjugate compounds which can be decomposed by hydration, yielding campherol, and the new acid which they named glycuronic.

The chemical relations between these conjugate compounds, that form part of a numerous class found in the system under similar conditions, and the products of their decomposition by hydration when heated with dilute sulphuric acid, are expressed in the following equations:

$$\underset{\text{Urochloralic acid.}}{C_8H_{11}Cl_3O_7} + H_2O = \underset{\text{Trichlorethyl alcohol.}}{C_2H_3ClO} + \underset{\text{Glycuronic acid.}}{C_6H_{10}O_7}.$$

$$\underset{\text{Urobutylchloralic acid.}}{C_{10}H_{15}Cl_3O_7} + H_2O = \underset{\text{Trichlorobutyl alcohol.}}{C_4H_7Cl_3O} + C_6H_{10}O_7.$$

$$\underset{\text{Uronitrotoluic acid.}}{C_{13}H_{15}NO_9} + H_2O = \underset{\text{Nitrobenzyl alcohol.}}{C_7H_7NO_3} + C_6H_{10}O_7.$$

$$\underset{\text{Camphoglyceronic acid.}}{C_{16}H_{24}O_8} + H_2O = \underset{\text{Campherol.}}{C_{10}H_{16}O_2} + C_6H_{10}O_7.$$

Glycuronic acid reduces Fehling's solution by the aid of heat, and is optically active, but while its conjugate compounds are levogyrate, the free acid is dextrogyrate. Its composition, its properties, and its double function of acid and aldehyde, indicate as exceedingly probable that glycuronic acid is derived directly from glucose. The polarmetric estimation of glucose in diabetic urine frequently reveals a greater dextro-rotation than should be produced by the quantity of glucose present as estimated by cupro-alkaline reduction; at other times a levogyrate action is observed after the glucose has been destroyed by fermentation. These variations would at once become explicable if it could be shown that in the one case the urine contains free glycuronic acid, and in the other a compound of that substance. On the other hand, the existence of notable proportions of glycuronic derivatives in the urine of diabetes mellitus would appear to point clearly to a relation between glycuronic acid and glucose.

Since compounds of such diverse nature as chloroform, chloral, camphor, toluol derivatives, and many others, are eliminated by the urine in conjunction with a common associate, the idea appears at least plausible that this common factor is a constituent of normal urine, and a constant product of normal tissue waste. If this view be correct, then is the reduction of Fehling's solution by normal urine readily understood.

M. Flückiger[1] has reviewed this whole subject with great care, and has recently published the results of a long series of experiments which appear to indicate a great probability that glycuronic acid, or one of its compounds, does exist in normal urine. After finding, in accordance with the statements of other observers, that the reducing power of the urine is equivalent to that of a 0.15 to 0.25 per cent. glucose solution, he has shown that in about one-third of the specimens examined this power was increased by boiling with dilute sulphuric acid, while in the others such treatment produced no changes. By evaporation of the urine to one-tenth of its volume, and dilution of the residue with sufficient water to make up the original volume, five-sixths of the reducing substance is destroyed, or so altered as to lose its reducing powers, when the evaporation is conducted over an open fire or at a temperature of 212° F., and about one-sixth when it is conducted at a temperature of 140°. The reducing substance may be extracted by alcohol from the syrupy residue of concentrated urine, but unfortunately when the alcoholic solution is evaporated and the residue dissolved in water, the reducing power of the solution so obtained cannot be measured, for the reduced cuprous oxide remains in solution. Happier results followed the trial of dialysis; forty-eight hours dialysis of urine reduced to one-fourth its volume, gave an aqueous solution whose reducing power was equal to that of the unaltered urine.

The obtainment in substances of such an unstable compound as glycuronic acid from so dilute a solution as that in which it would exist in the urine, if it exist there, is hardly to be thought of. Flückiger therefore bases his conclusions on the similarities between the reactions of the reducing constituent of urine and those of glycuronic acid. His experiments show that the urine constituent is almost entirely destroyed by evaporation above 194° F., and experiences a partial destruction at 140°; that it is soluble in alcohol but insoluble in ether; that only a small portion of it can be precipitated by barium hydroxide, but that it is precipitable by lead acetate, particularly by the basic acetate; although the greater portion of it is decomposed either by the reaction of the lead solution or by the subsequent treatment of the precipitate; that it is able not only to reduce cupro-alkaline solutions, but to retain in solution the resulting cuprous oxide; that it is dialyzable, and that it yields acetone when oxidized by a mixture of potassium dichromate and sulphuric acid.

The reducing substance of normal urine acts much more slowly on cupric solutions than does glucose; the compounds of glycuronic acid also require a longer interval to effect the reduction. So

[1] Wiedemann, Archiv für experiment. Pathologie, vi. 630.

[2] Schmiedeberg und Meyer, Zeitschr. für physiolog. Chemie, iii. 422.

[1] Flückiger, Zeitschr. physiolog. Chemie, ix. 324.

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far as is known, the property of retaining in solution the cuprous oxide reduced from cupric solutions is possessed only by nitrogenized compounds, and this fact would seem to contradict the proposition that the reduction is due to a glycuronic compound; but glycuronic acid is especially apt to form conjugate combinations with such nitrogenized substances as would prevent the precipitation, and it is not improbable that one or more of these combinations may exist in the urine. By the oxidation of glycuronic acid Schmiedeberg and Meyer obtained only formic and carbonic acids, but Flückiger finds that a small quantity of acetone, or at least a volatile liquid responding to the reactions of acetone, is formed at the same time.

As the conclusions to be drawn from these researches, Flückiger proposes the hypothesis "that the reducing substance of normal urine is a conjugate compound of glycuronic acid, which is derived from the glucose of blood, and to the decomposition of which is to be attributed the acetone found in physiological and pathological urine."

He thinks also that the oxybutyric acid recently extracted by Minkowski[1] and Külz[2] from diabetic urine may find its source in glycuronic acid, one molecule of which would yield carbon dioxide, and formic, and oxybutyric acids. He has indeed found that by long boiling with water glycuronic acid yields an acid which is not volatile with vapor of water, but which he has not yet obtained in quantity sufficient for analysis. That acetone may be extracted from diabetic urine was shown by Kaulich[3] in 1860, and in 1870 Lieben[4] found that normal urine contains a substance which responds to the iodine test for acetone; that this substance is actually acetone was clearly demonstrated by Von Jaksch,[5] who in 1883 conducted a series of investigations which resulted in the extraction of acetone in sufficient quantity for identification by its boiling point and by analysis of its compound with sodium acid sulphite. Minkowski has attributed this acetone to the oxidation of his oxybutyric acid; if Flückiger's theory be correct, the oxybutyric acid itself is derived from a glycuronic compound. It is worthy of note that Flückiger has obtained as much as two cubic centimetres of acetone by the oxidation of the residue of thirteen litres of normal urine which were evaporated at a low temperature and from which the urea had been removed.[6]

While the results of this investigation here summarized are not sufficiently positive to exclude the possibility of error, and the conclusions are not, therefore, unquestionable, the laboratory work involved is surrounded by difficulties of no small moment, and though the solution of the problem may not be final, the direction of further research seems clearly indicated.

[1] Minkowski, Archiv für experiment. Pathologie, xviii. 4.
[2] Külz, Zeitschrift für Biologie, 1884, 165.
[3] Kaulich, Prager Vierteljahrsschrift für prakt. Heilkunde, xvii. 38.
[4] Lieben, Annalen der Chem. und Pharm., vii. sten Supplemetsband, 218.
[5] R. Von Jaksch, Zeit. für physiolog. Chemie, vi. 541.
[6] Flückiger. Zeitschr. für physiolog. Chemie, ix. 353.

A CASE OF SIMPLE ENDOCARDITIS LIMITED TO THE RIGHT HEART.

Reported by RADCLIFFE CHESTON, M.D.,
RESIDENT PHYSICIAN, EPISCOPAL HOSPITAL

By permission of Dr. F. P. Henry, the physician in charge, I report the following case of simple endocarditis limited to the right heart, occurring in the wards of the Episcopal Hospital, as interesting, owing to the rarity of its primary occurrence during adult life:

Eliza H., æt. 60, single, born in England, was admitted to the ward on March 27, 1885, with left-sided hemiplegia, from which she had been suffering for five weeks. The attack came on suddenly during the night. She was awakened by the pain and intense itching in left arm and leg, and on attempting to move she fell out of bed, and was picked up completely paralyzed on left side. The muscles of the face were paralyzed on the right side, and she had no control over bladder or rectum. Her family history was good; she had never had rheumatism or syphilis. As far as I could ascertain, she had always been a healthy woman up to the time of her present trouble, excepting slight paroxysms of præcordial pain, for a month before the present attack.

On admission, she was found to be very much emaciated; had complete paralysis of left side; no anæsthesia; left arm and leg slightly œdematous. Intelligence very good; sight good; pupils small, equal, and responsive; could not sleep; no control over bladder or rectum. Heart was feeble and accelerated, with a soft, systolic murmur, heard best at ensiform cartilage. She gained control over the bladder and rectum, for a short time, under treatment with the syrup of the hypophosphites, strychnia, etc., but gradually lost ground, and died with a feeble, rapid heart and great dyspnœa, on the 7th of May.

Autopsy.—Brain very soft; vessels full; those at base of brain very hard and patulous, showing atheroma of their walls. The dura mater was inflamed and adherent to the brain, with patches of lymph along the longitudinal fissure; the other coverings of the brain were also inflamed. In the cortical substance of the third ascending frontal convolution, close to the longitudinal fissure, was found a clot the size of an English walnut, undergoing softening. There was very little effusion into the ventricles. The heart was found to be about the normal size, covered with fat, and its walls of natural thickness. The aorta was dilated and decidedly atheromatous. The coronary arteries were enlarged, showing also atheromatous change. The left heart showed no pathological change, both the aortic and mitral valves were perfectly competent by the hydrostatic test, and of normal texture, as were also the pulmonary valves; but the tricuspid valve was found to be incompetent; the two posterior cusps were bound down to the walls of the heart by a fibrinous exudation, with a small fibrinous clot between one of the cusps and the heart-wall. Along the margins, on the auricular surface of the cusps, were minute rose-colored vegetations, while the cusps themselves were considerably thickened back to their base. In the right auricle, on the

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right posterior wall, was found a fibrinous clot, one inch and a half long, one inch wide, and a third of an inch thick, firmly bound to the wall of the auricle so tightly that when it was detached almost the whole muscular and serous layers came with it.

Unfortunately, the other organs were not examined, as the heart was taken out in reference to the brain lesion, and was not examined until the body was closed up.

In conclusion, I would like to draw attention to a few special points of interest, viz.:

1st. The limitation of the endocarditis to the right heart after fœtal life, an extremely rare occurrence.

2d. To the binding down of the cusps of the valve to the heart wall, which is mentioned in Dr. Byron Bramwell's work on *Diseases of the Heart*, as very exceptional in simple endocarditis.

3d. To the fibrinous clot, bound so firmly to the wall of the right auricle.

MEDICAL PROGRESS.

THE TREATMENT OF HERPES OF THE CORNEA.—M. GALEZOWSKI (*Recueil d'Ophthalmologie*, March, 1885) considers febrile herpes of the cornea to be a disease of frequent occurrence in cold and moist seasons. It is characterized by intense photophobia, lacrymation, and perikeratic redness. The margin of the cornea presents fine ulcerations, as though portions of the membrane had been eroded with the point of a pin. As a rule, they do not penetrate deeper than the layer of Bowman, and they are arranged in a radial manner from the centre towards the circumference along one or more radii. A remarkable feature of the disease is that the cornea is perfectly insensitive. Throughout the whole extent of the herpetic eruption the cornea may be rubbed or pressed with a probe or needle without the least pain being experienced. The other parts of the cornea, however, preserve their normal sensibility. The total anæsthesia of the cornea in the affected portion distinguishes the disease from phlyctenulæ of the cornea, and from abscess of this membrane. The treatment of the disease consists in the employment of the compressive bandage, especially combined with moist heat in the form of spray and boric acid. This acid, he believes, destroys the microbes which accumulate in corneal ulcers and facilitates the process of cicatrization by acting as an astringent. He prescribes it in three forms. (1) In a 2 per cent. solution, either as a lotion, or a douche, or a spray. (2) In the form of an ointment containing one grain of the acid to forty of vaseline, introduced between the lids two or three times daily. (3) In the form of a fine powder, which should be applied to the surface of the cornea with a camel-hair brush. He exchanges the boric acid for atropine or pilocarpine once or twice a day. Internally quinine may be administered with advantage.—*The Practitioner*, July, 1885.

THE RESULTS OF THE USE OF ANTIPYRINE AT THE BOSTON CITY HOSPITAL.—DR. GEORGE B. SHATTUCK in *The Boston Medical and Surgical Journal*, of July 23, 1885, recounting the results of the use of antipyrine at the Boston City Hospital, says: Antipyrine was administered in several cases of intermittent, without interrupting the chills and without appreciable effect. This failure was anticipated from our previous experiences with kairine. A few instances are reported from Germany, in which the periodicity of the attacks was broken temporarily by large doses; but such instances are exceptional, and no antiperiodic action has been claimed or can be allowed. All these coal-tar derivatives resemble quinine in their antipyretic action, but differ from it in lacking the specific antiperiodic action upon malarial conditions.

The fall in temperature ordinarily begins to declare itself in about an hour after giving antipyrine, reaching its maximum in from three to five hours after the full dose of six grammes, divided in the German fashion, continuing on an average about eight hours, though sometimes lasting twice as long. A fall of from 3° to 5° F. is very easily secured. The change in the pulse is by no means always proportioned to that in the temperature. The urine is somewhat diminished, free from albumen, and but little altered in color—in the last respect offering a contrast to urine after kairine.

We have had no experience with antipyrine in children. Two German observers who used it largely in a children's clinic report that it is well borne by them, and suggest one decigramme for each year of age as a a rule for the dose to be given.

As a general result of our experience at the City Hospital, where further trials are still being made, I am able to endorse antipyrine as: (*a*) An efficient and reasonably safe antipyretic, without antiperiodic qualities.

(*b*) Whose exhibition in proper doses is, as a rule, unattended by serious discomforts or drawbacks.

(*c*) By reducing a high temperature it frequently substitutes calm for excitement, and sleep for restlessness.

(*d*) Otherwise it does not usually modify the course of disease, and certainly not of typhoid fever.

(*e*) The quality of the sample used must be carefully watched in these synthetical compounds. A poor article will produce vomiting, chills, and collapse, when a good one will not; or, on the other hand, may be inefficient when the pure drug would have proved effective.

Antipyrine may be employed in a variety of febrile conditions, though its desirability in phthisis is questioned; but typhoid fever is the disease in which it is likely to be most largely and frequently used. When used in typhoid it should be distinctly without expectation of modifying the course of the disease. To emphasize our own experience on this point, I may quote that of Alexander, who reports a severe relapse in typhoid after the administration of fifty-four grammes of antipyrine in divided doses throughout the first attack; and of Dr. William H. Draper, in whose service at the New York Hospital, of five patients *dying* from typhoid fever, one took ten grammes in ten doses during five days; a second twenty-seven grammes in seven doses during six days; a third thirty-four grammes in twenty-one doses during eight days; a fourth forty-eight grammes in ten doses during seven days; a fifth three hundred and twenty-one grammes in sixty-five doses during thirty days.

THE NUTRITION OF THE NERVOUS SYSTEM.—DR. MAIRET, at the close of a critical article upon the nutrition of the nervous system, says the relations which

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exist between phosphoric acid and the nervous system are:

1. Phosphoric acid is intimately related with the nutrition and functional power of the brain. The brain in action takes up phosphoric acid in combination with the alkalies, and forms phosphoric acid in composition with the earths.

2. Intellectual exertion reacts upon general nutrition and modifies it.

3. Intellectual exertion modifies the elimination of phosphoric acid by the urine, and diminishes the percentage of phosphoric acid in composition with the alkalies and increases the percentage in combination with the earths.—*Archives de Neurologie*, July, 1885.

EXPERIMENTS UPON ENGRAFTED BONE.—DR. AMBROGIO FERRARI, after a long series of experiments upon the phenomena attending the engrafting of bone, reaches the following conclusions:

1. Pieces of bone engrafted into the shaft of a long bone become completely united and continue to live.

2. They not only continue to live, but also grow.

3. That such results follow without reference to the position in which the engrafted bone is placed.

4. The reunion of grafts occurs by a true vascularization which takes place between the engrafted bone and that into which it is introduced.

5. That a bony callus, periosteum, and medulla are formed in relation with the engrafted bone.

6. That, as in fracture, this callus possesses a temporary vitality.

7. That after a certain time the callus, periosteum, and medulla are absorbed, and the engrafted bone is nourished only by a greater vascularization.

8. That grafting occurs more completely if the inserted bone is in exact adaptation with the margins of the bone receiving it. While this observation is not verified, in a case where the opposite condition existed, a longer time was necessary for union to take place.

9. The most complete and careful antisepsis is required in order that complete union of the engrafted bone may occur.

10. The engrafting of several pieces of bone succeeds completely.

11. That in case of engrafting of several pieces of bone with partial suppuration, union of some of the pieces may take place provided suppuration does not extend to that portion of the engrafted bone in communication with the medulla.

12. Besides antiseptic precautions compression is required to maintain contact between the medulla and the pieces of bone engrafted in order to obtain a successful result.—*Gazzetta degli Ospitali*, July 22, 1885.

PSEUDO-SYPHILITIC PARALYSIS.—M. FERDINAND DREYFOUS distinguishes the following clinical forms of pseudo-syphilitic paralysis.

1. Cases in which syphilitic infection is known to exist and in which paralysis appears with slight syphilitic manifestation. The lesion in these instances can scarcely be mistaken, and even when osseous manifestations are ignored the relation between syphilis and the paralysis may be suspected. Thus Bednar and Henoch saw what they considered syphilitic paralysis in children, and referred them to the diathesis. Paralysis here appears as a manifestation of syphilis —*i. e.*, as a specific paralysis.

2. Cases in which the disease seems to have a traumatic origin. Fracture, displacement, or subluxation being only seen, the rôle of syphilis in the production of the disease may be overlooked. In such cases the paralysis appears as the result of traumatism, and, therefore, as a surgical affection.

3. Cases in which syphilis is ignored, no sign of the disease being manifested, and no other lesion being discoverable in any organ save the paralyzed member.

Accordingly, only infantile paralysis is suspected. In such cases the disease is presented as a simple paralytic affection, and its syphilitic origin must be traced.—*Revue de Médecine*, July, 1885.

OBLITERATION OF ONE LUNG AND DISPLACEMENT OF THE HEART.—At the closing meeting of the Islington Medical Society, on the 26th ult., DR. GLOVER gave the particulars and showed the specimens of two very striking lesions in the case of a man, aged sixty-three, whom he had known for several years as a dispensary patient and otherwise. The most noticeable peculiarity was the complete displacement of the heart. It occupied the right side, and beat between the fourth and fifth ribs. This fact had been observed thirty-five years ago by Mr. Jackson, one of the oldest members of the Society, and the patient had been examined by many physicians, amongst others by Dr. Austin Flint, who came to the conclusion that there was no transposition of organs—a conclusion verified by the post-mortem. But the autopsy revealed another lesion, which was as remarkable as the malposition of the heart. This was the almost complete absence of the right lung. It had to be long sought for ere it could be found, and was then discovered as a very hard shrivelled substance, in shape something like a sausage. On being cut into, it was found to consist almost entirely of thickened pleura, the pleura being at points half an inch thick. The lung substance was nearly destroyed, not with intersecting bands of fibrous tissue, but by this envelope of thick pleura. The left lung was correspondingly large. No history of pleurisy could be traced in the patient's life, and no history of consumption in that of his family. He had always been weak and slight. His mother always had noticed "a beating on the wrong side." He used to have severe bleedings at the nose. His chief troubles had been cough and rheumatism. He died in the Islington Workhouse of broncho-pneumonia. It is common to say that a person has lost a lung, but here the statement was a literal expression of the fact, though the patient contrived to live without it, and with his heart on the wrong side, for sixty-three years.—*Practitioner*, July, 1885.

THE INCOMPATIBILITY OF CHLORAL HYDRATE IN THE PRESENCE OF POTASSIUM BROMIDE AND ALCOHOL.—PROF. GEORGE F. H. MARKOE, in experimenting with solutions of chloral hydrate finds this drug incompatible with bromide of potash and alcohol. He says: Experiments prove that the alcohol is the cause of the trouble, and the writer thinks that the chloral hydrate is changed into the less soluble chloral alcoholate.

The writer found that the addition of potassium bromide, sodium bromide, sodium chloride, and magne-

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sium sulphate to strong solutions of chloral hydrate, together with the presence of alcohol, determined a separation of the liquids into two layers. Ammonium chloride, ammonium bromide, potassium nitrate, and calcium bromide did not disturb the same chloral solutions.

The practical lesson to be learned from this incompatible prescription is that alcoholic preparations should not be prescribed with chloral hydrate, especially not in connection with the bromides of potassium and sodium, because if concentrated solutions are used the chloral will separate as alcoholate, float on the surface, and a great risk will be incurred of giving a large overdose, the patient having received no caution with regard to the necessity of shaking the contents of the bottle before taking a dose.—*Boston Medical and Surgical Journal*, July 23, 1885.

APHASIA AND ITS DIVERSE FORMS.—M. BERNARD, in a thesis upon aphasia and its diverse forms, recognizes the special features of the affection under the following heads:

1. Aphasia is the amnesia of signs.

2. The complex and varied conditions embraced under the term aphasia have been observed long since. Up to the investigations of Bouillaud, no synthetic study of the affection had been made. Broca first analyzed and definitely fixed the symptoms and anatomical localization of one of the forms of aphasia, *i. e.*, of aphemia, or abolition of the power of articulate speech.

3. By rigorous application of the anatomo-clinical methods, Charcot established also the existence and independence of other forms of aphasia-agraphia hitherto contested, verbal deafness, verbal blindness—forms distinguished by Marcé, Wernicke, and Kussmaul.

4. Words, as are the generality of signs, are not units, but composites of at least four elements. They must be *heard* and *articulated*, *read*, and *fixed by writing*. Aphasia may depend on one or more of these elements, whence are derived the four principal forms of aphasia.

5. Blindness of words is amnesia of the signs and figures of written speech in particular. The patient sees the signs, but cannot interpret them. The left inferior parietal lobule of the brain is constantly involved in the case of verbal blindness. Hemiopia to the present time has always accompanied it.

6. Verbal deafness is the inability to comprehend a spoken word, or, indeed, all language heard. It depends upon a lesion of the first left temporo-sphenoidal convolution.

7. Aphemia, or loss of memory of the coördinated movements necessary for the articulation of speech, depends upon a lesion at the base of the third left frontal convolution, and is frequently accompanied by right-sided hemiplegia.

8. Agraphia is the abolition of the coördinated movements necessary for writing. Its anatomical location is probably the bottom of the second left frontal convolution.

9. In the left-handed the right hemisphere is the seat of the lesions upon which aphasia depends.

10. All representation of ideas and all speech may be affected.

11. The independence and relevancy of each variety of aphasia cannot be estimated in those cases in which they coexist in the same patient, inasmuch as in such conditions the different forms of expression are very unequally affected.

12. Symptoms of aphasia are extremely variable from time to time, even in the same patient, a fact which imposes upon the physician, and especially upon the legal physician, the necessity of frequent examination.

13. No formula can be given as to either the moral capacity or the intellectual strength of the aphasic.

14. Whatever may be the form, the progress, and the cause of aphasia, prognosis must always be made with much reservation.—*Revue Médicale*, June 6, 1885.

TREATMENT OF TUBERCULOSIS.—POTAIN recommends the annexed prescription as a remedy in tuberculosis:

℞.—Sodii chloridi . . . . ℥ijss.
Sodii bromidi . . . . gr. lxxv.
Potassii iodidi . . . . gr. xv.
Aquæ dest. . . . . f℥iij.—M.

S.—Dessertspoonful every morning in a cup of milk.—*Revue de Thérapeutique*, July 15, 1885.

OINTMENT FOR THE TREATMENT OF ITCH.—KAPOSI recommends the following ointment in the treatment of itch.

℞.—Naphthol . . . . . ℥iv.
Saponis vird. . . . . ℥iss.
Cretæ præcip. . . . . ℥iiss.
Adipis . . . . . ℥iij.—M.

Apply thoroughly with friction to the regions affected and powder with starch. The ointment has no disagreeable odor and does not stain the garments. It, however, causes cutaneous inflammation under the form of red spots, urticaria or disseminated papules of eczema, which are not severe. For nursing and young children the naphthol should be diminished to the proportion of 5 to 100.—*L'Union Médicale*, July 25, 1885.

SEA BATHS AS A CAUSE OF EAR DISEASE.—F. BOBONE, in a research into the causation of ear disease by sea baths, gives the following résumé of his conclusions:

1. Sea baths are sometimes the cause of serious disease of the ear.

2. The disease is usually occasioned by the entrance of water into the external auditory meatus, and is found in those persons who dive or plunge under water.

3. Among the affections so caused, external otitis and tympanitis predominate.

4. Purulent otitis of the middle ear is also frequently met with as a result of sea baths, but frequently is secondary to the tympanitis.

5. Purulent otitis of the middle ear as a result of entrance of water into the tympanum through the Eustachian tubes, is of extreme rarity.

6. Diving and plunging under water is useless and dangerous and the practice should be deprecated to bathers, especially to those whose ears are already diseased.

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7. Syringing the external auditory canal with sea water, a procedure still recommended by some practitioners is irrational and far more productive of evil than of good.

8. A pledget of cotton in either ear previous to entering the water will prevent much of the danger to hearing resulting from the entrance of sea water into the auditory apparatus.—*Gazzetta degli Ospitali*, July 19, 1885.

NEUROSES OF THE STOMACH.—DR. OSER, in the *Wiener Medizinische Blätter*, divides neuroses of the stomach into two classes.

1. Those dependent on a diminution of the power of motion.

2. Those which are dependent on an increase of this power.

He notes in the first group:

1. Rumination, which results probably from a paralysis of the cardia. Light forms may be cured by nutriment without fluids, dorsal decubitus after meals, or by faradization of the cardia. Grave forms terminate fatally.

2. Insufficiency of the pylorus. In this condition he advises the distention of the stomach by carbonic gas.

3. Gastroplegia, or insufficient muscular action of the stomach.

In the second group he places.

1. Cramp of the cardia, which may be diagnosticated by the œsophageal sound.

2. Cramp of the pylorus, which is due to a reflex caused by pressure.

3. General gastric cramp.

4. Peristaltic derangements, frequent in hysteria and neurasthenia.

5. Nervous vomiting.—*L'Abeille Médicale*, July 6, 1885.

THE PHYSIOLOGICAL ACTION OF CHINOLINE TARTRATE.—DR. CONRAD BERENS, in *The Therapeutic Gazette*, of July 15, 1885, in an exhaustive experimental study of the physiological action of chinoline tartrate, reaches the following conclusions:

1. Chinoline tartrate is a powerful agent, producing death by asphyxia.

2. The drug increases the force and frequency of the respirations by stimulating the vagus roots in the lung.

3. It paralyzes respiration finally by a secondary depressant action upon the respiratory centre.

4. It does not cause convulsions.

5. It lessens, and finally abolishes, reflex action by a direct action upon the cord, and by a slight action upon the muscles and nerves.

6. It diminishes or abolishes muscular contractility respectively when applied through the circulation or directly.

7. It coagulates myosin and albumen.

8. It causes insalivation by paralysis of the secretory fibres of the chorda tympani; increases the flow of bile; has no action upon the spleen.

9. It lowers blood-pressure by paralyzing the vasomotor centres, and by a direct depressant action upon the heart-muscle.

10. It diminishes the pulse-rate by direct action upon the heart.

11. It lowers the temperature by increasing the loss of heat.

12. It is a powerful antiseptic; and, finally,

13. Its paths of elimination are not known.

OINTMENT IN ULCER OF THE CORNEA.—GALEZOWSKI recommends an ointment as follows in the treatment of ulcerated cornea:

℞.—Iodoformi pulverati . gr. xv–xxx
Vaselini puri, . . ʒiiss.—Mix carefully.

The ointment is useful in herpetic and scrofulous ulcers of the cornea. It acts also favorably in ulcers appearing in syphilitic subjects. It may be used several times during the day. In addition, a collyrium of pilocarpin and douches of carbolized spray are also beneficial, used fifteen or twenty days. The ulcer is filled up by new tissue, and cicatrization gradually progresses.—*L'Union Médicale*, July 9, 1885.

SYPHILITIC AFFECTIONS OF THE LARYNX; THEIR FORM AND FREQUENCY.—G. LEWIN, in *Archivi di Laringologie*, Napoli, 1885, enumerates the syphilitic lesions of the larynx as follows:

1. *Erythema*, characterized by a tendency to superficial exfoliation. Catarrh of the larynx exists only in cases complicated by other diseases.

2. *Mucous patches* (little marked, however) are observed upon the vocal cords, in those parts supplied with papillæ. Their ulceration cannot be affirmed with certainty.

3. *Perichondritis*, not always a result of transmission from the tissues overlying the cartilages, inasmuch as the perichondrium may be primarily affected.

4. *Œdema of the larynx*, in general secondary in syphilitics, and is due to other morbid causes than are associated with specific laryngitis.

5. *Laryngeal syphilis* is relatively rare when syphilis is subjected to rational treatment.

The prognosis of all affections of the larynx, except cicatricial stenosis, is very favorable when treated by subcutaneous injections according to the method originated by the author.—*Lo Sperimentale*, June, 1885.

THE EMPLOYMENT OF WOOD CHARPIE AND WADDING IN THE DRESSING OF WOUNDS, AND AN ANTISEPTIC POWDER REPLACING IODOFORM.—At a recent meeting of the Paris Surgical Society, M. CHAMPIONNIÈRE criticised the antiseptic gauze generally employed in the Listerian dressing of wounds, as being almost impermeable to fluids, and as retaining its antiseptic qualities for a limited time only. He also held that it is poorly prepared, and irritates the skin.

M. Championnière further announced that for four months he had used in nearly all his more important operations a new substance, invented in Germany—*wood lint*. This is a preparation of the wood of the fir tree, resembling a paste of paper, and impregnated with a solution of corrosive sublimate of 1 to 4000 in strength. When combined with wadding in a proportion of one-fifth, it receives the name of wood wadding.

The substance is soft to the touch, easily compressed, and capable of readily absorbing large quantities of fluid, so that when placed in contact with a wound, the discharges therefrom do not appear or escape from the dressing.

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The amount of corrosive sublimate contained in the dressing is relatively large, and when infiltrated into the discharges of the wound readily prevents putrefaction. Owing to these qualities, it is possible to allow a dressing to remain a much longer time than ordinarily is possible, without removing it.

M. Championnière further remarked that the dressing under consideration sometimes fissures, and that thus, if employed alone, septic infection may thereby result. To obviate this, the wound is directly sprinkled with the following powder: Iodoform, sifted; powdered Peruvian bark; powdered benzoin; and powder of magnesia, saturated with some eucalyptus. This preparation is superior to simple iodoform, both on account of its lack of disagreeable odor and greater cheapness.—*L'Union Médicale*, July 7, 1885.

TREATMENT OF ANÆMIC NEURASTHENIA.—MAXIMOWITCH recommends the following for the treatment of neurasthenia due to anæmia:

℞.—Ferri bromidi,
Quiniæ hydrobrom. . . . āā 3j.
Ext. rhei . . . . . q. s.—M.
S.—Ft. pil. cxx.

Dose: Two pills three times daily.—*Revue de Thérapeutique*, July 15, 1885.

THE DIAGNOSIS OF APPARENT DEATH.—M. BUSH, in the *Centralbl. f. Nervenheilkunde*, 1884, suggests the application of the faradic current to different parts of the body, in order to excite contraction of the muscles. If the attempt is successful, a surface thermometer, or an ordinary thermometer with proper precautions, is placed and retained upon the skin for from three to five minutes, while contraction of the subjacent muscles is maintained. If the temperature rises, the person is alive.

A second method suggested is the following: In normal conditions, violent mechanical excitation, as pinching of the skin, determines a rise of temperature in an extensive circuit by vascular reflex dilatation, and the same phenomenon is observed after application of snow or ice. Nothing similar occurs in a corpse. The author has not, however, had opportunity to test the correctness of his theory upon any case of apparent death.—*Archives de Neurologie*, July, 1885.

CONTRIBUTION TO THE STUDY OF ANTISEPTICS.—At a meeting of the Académie des Sciences, held July 20, 1885, MM. A. MAIRET, PILATTE, and COMBEMALE made a report on the effect of carbolic acid and resorcine upon the higher forms of life. The phenomena observed from the action of resorcine are similar to those produced by carbolic acid, differing only in the following points:

1. Resorcine is more toxic. When injected in a strength greater than one and a half grains to every two and a half pounds, by weight, of the animal experimented upon, death ensues.

2. The saliva, which is very abundant, and the expired air, do not contain resorcine.

3. After the injection of resorcine the temperature falls a little more than under the influence of carbolic acid; sensibility is more blunted, and weakness is considerable.

4. Autopsy shows congestion and inflammation on the part of the spleen, pancreas, and mesentery, which have not been observed in experiments with carbolic acid.—*Gazette Hebdomadaire de Méd. et de Chirurg.*, July 24, 1885.

PROGRESSIVE TABETIC PARALYSIS.—DR. EMILE DEMANGE gives the following résumé of his study of progressive tabetic contracture:

1. There are reasons for describing a special form of tabes with contracture, distinct from spasmodic tabes, and from amyotrophic lateral sclerosis, but with which it offers numerous points of resemblance.

2. This form has been observed in extreme old age—after sixty-six years.

3. It depends for its origin upon a general atheromatous condition of the spinal bloodvessels.

4. Anatomically it is characterized by a diffuse interstitial sclerosis of vascular origin, in different portions of the spinal marrow, but more especially in the lateral cords, without, however, remaining limited to this system alone.

5. Clinically, it holds a middle place between spasmodic tabes and lateral amyotrophic sclerosis.

6. This form of disease we designate by the title of *progressive tabetic contracture of the atheromatous.*—*Revue de Médecine*, July, 1885.

EXPERIMENTAL STUDY UPON THE POSITION IN THE BLADDER OF OBLONG FOREIGN BODIES.—DR. HENRIET, after a series of experiments to determine the position of oblong foreign bodies in the bladder, recites the following conclusions:

1. Oblong foreign bodies when introduced into the bladder tend generally to assume a transverse position. This tendency is explained by the constancy of the transverse diameter of the viscus.

2. However, when the bladder is distended, the foreign body may take various positions, in every direction, uncertain and variable with the movements of the viscus, and not at all to be foretold.

3. When the length of the foreign body exceeds three or four inches, and it is sufficiently resistant to be unable to accommodate itself to all positions, it can only be received in a bladder more or less filled, and will lie in either the vertical or oblique diameter.

4. When foreign bodies are of moderate size and capable of being accommodated in any diameter, they may float in the viscus when it is full of urine, if their specific gravity permits. But hollow bodies, such as the ends of catheters, etc., become filled with fluid and always occupy the bottom of the organ.—*Annales des Maladies des Organes Génito-Urinaires*, July, 1885.

SURGICAL INTERVENTION IN DISLOCATION OF THE CRYSTALLINE LENS.—DR. DEHENNE, in a communication read at the Société de Paris, June 13, 1885, gave the following résumé of the conditions justifying surgical interference in dislocation of the crystalline lens:

1. Extraction of a luxated crystalline lens should only be attempted when the luxation is in front of the iris.

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2. In every luxation posterior to the iris, no effort should be made at extraction.

3. If the patient suffers no pain, no interference with the condition should be made at all.

4. If there are symptoms of glaucoma exhibited, two cases are to be distinguished:

a. All perception of light is lost. Enucleation is necessary.

b. The media and the deep membranes are intact. It is necessary in the first place to practise a *sclerotomy*.

If accidents recur, remove the lens from the region dangerous to the eye, and, as a last resort, perform enucleation.—*L'Union Médicale*, July 5, 1885.

TREATMENT OF PERSISTENT METRORRHAGIA.—

℞.—Ergotine (Bonjean's) . . gr. xlv.
Rutæ pulv.
Savinæ pulv. . . . āā gr. xxij.—M.
S.—Ft. pil. No. xxx.

Take two pills daily, and increase to four.—*Revue de Thérapeutique*, July 15, 1885.

OSMIC ACID INJECTIONS IN TRIGEMINAL NEURALGIA.—DR. SCHAPIRO, in a recent lecture before the St. Petersburg Medical Society, gave an account of the chemical and therapeutical history of osmic acid, commencing with the discovery of the metal osmium in 1804 by the English chemist, Smithson Tennant, and concluding with his own observations made during the latter half of 1884, in the ambulance of the Imperial Philanthropic Society, when he employed injections of osmic acid in eight cases of trigeminal neuralgia, all of them severe, very obstinate, and of long standing. Of these cases five were cured, two improved, and one derived no benefit from the treatment. The formula used by him was—℞ Acidi osmici, 0.1; aquæ dest., 6.0; glycerini chemice puri, 4.0. This he found kept well for two or three weeks; while the simple watery solution began to become brown in three or four days, and afterwards turned black, and was then useless. As one gramme costs four roubles (eight shillings), being thus four times as dear as gold, it is of considerable importance to make use of a solution which will keep. The writer also found no dark specks in his solution such as are to be met with in that used by Neuber. The dose injected was at first five drops, afterwards more, the medium dose being eight drops. The only time when any unpleasant symptom occurred was in the case of a highly nervous lady who had been subject to epilepsy, and in whom the injection induced an attack of faintness very similar, in Dr. Schapiro's opinion, to the *petit mal*, and he suggests that with nervous patients the possibility of the occurrence of faintness should be borne in mind. The only case in which no improvement followed the treatment was that of a lady whose case was diagnosed by Professor Erb as hysterical neuralgia, and who suffered from severe pain in the neck and back of the head, and was believed to have some central lesion. In her case a single injection was followed by increased pain, and she refused to allow any more injections to be attempted. Dr. Schapiro, not having observed any evil local effects such as were described by Lichenstein (sanguineous bullæ, scabs, tedious boils), does not hesitate to inject under the skin of the face. He does not at present go deeply into the theory of the action of osmic acid, though he intends to study this experimentally; but he remarks that its most important action is to cause inflammation of the terminal nerve branches, it narcotic effect being of a secondary nature only.—*The Lancet*, August 1, 1885.

PUERPERAL CONVULSIONS WITHOUT ALBUMINURIA.—DR. N. VUCCINO, of Rodosto, writing in the Constantinople *Gazette Médicale d'Orient*, gives the case of a lady usually enjoying excellent health, except for occasional hysterical attacks, who in the fourth month of her first pregnancy was seized with a severe frontal hemicrania of quotidian type. At the end of the sixth month she was awakened one night with intense pain in the head, followed by a slight convulsion affecting the upper extremities. In the morning the writer found her suffering from general convulsions, consciousness being lost, and a bloody froth issuing from the mouth; the pulse was small and hard; but the urine was then, and continued to be, perfectly normal. Various methods of treatment having proved fruitless, it was decided to bring on the labor, which was done by injecting hot water (32°). After this had been continued for three hours and a half, the os uteri became fully dilated, and a dead child was shortly afterwards expelled. The convulsions ceased as if by magic, and in twelve days she was able to resume her household occupations. She afterwards enjoyed good health till the eighth month of her second pregnancy, when convulsions reappeared with greater intensity than before. Chloral and chloroform proving inefficacious, the continual hot vaginal douche was again employed. In consequence of the irregularity of the contractions of the uterus forceps were required. The convulsions ceased five hours after delivery, and in seventeen days she was again in her normal condition. She subsequently became pregnant for the third time, and during the second month suffered from some premonitory convulsive symptoms, which were increased by vaginal examination; these came to an end on the patient aborting. The author considers the case interesting, as showing how convulsions, due, as he believes, to a highly nervous condition of the uterus, may simulate those connected with renal and urinary mischief.—*The Lancet*, July 18, 1885.

THE USE OF HOMATROPINE AS A SUBSTITUTE FOR ATROPINE IN ESTIMATING LESIONS OF REFRACTION OF THE EYE.—MESSRS. W. LANG and J. W. BARRETT, after a careful clinical study of the use of homatropine as a substitute for atropine in ascertaining lesions of refraction, conclude:

1. That in the majority of cases where it is required to estimate the refractive condition of the eye atropine need not be used, but that a 2 per cent. homatropine ointment or solution applied in the manner indicated will answer equally well.

2. That the effect will pass off in from one to two days, but that if the patient be hypermetropic or emmetropic, and is desirous of avoiding the period of paresis of accommodation,

3. One or two applications of 0.8 per cent. solution of eserine just after the examination is finished will give him fair near vision until the effect of the homatropine is beginning to pass off.—*Medical Times*, July 18, 1885.

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SATURDAY, AUGUST 15, 1885.

THE INTERNATIONAL MEDICAL CONGRESS.

WE invite careful attention to a letter appearing in another column, which has been received from Sir James Paget, who, as the immediate predecessor of the lamented Panum in the Presidency of the Congress, and as a member of the existing Executive Committee, speaks in reference to the organization of the next Congress with the highest authority. This letter commends itself to the thoughtful consideration of every physician who has the true interest of the American profession at heart, and it will give light to some who desired more authoritative information than they have yet possessed to guide correctly their future course of action.

It has been asserted by the editors of one or two medical journals that the Executive Committee of the last International Medical Congress no longer exists, that therefore the Congress must meet next in this country, and hence, that the American Medical Association plan must be adopted and supported. We have now information from members of the Executive Committee of the Copenhagen Congress, that that Committee is considered to be still in existence, that it still has work to do, and that it will by no means hesitate to assume the responsibility of ordering that the Congress shall meet in Europe instead of this country in 1887, in case it considers that such change of place of meeting would be for the interests of the Congress. And if it does issue such a notice there can be no doubt that it will be obeyed.

Of this Committee Sir James Paget is one of the most prominent and influential members, and hence his opinion demands the most serious consideration. This opinion is clear and straightforward. "*Certainly it was not expected that the Congress would be regulated with any degree of exclusiveness by the members of one medical association, however numerous, and I think it quite as certain that, if this had been thought possible, the proposal that the next meeting should be held in the United States, would not have been adopted.* I am sorry also to feel sure that if the Congress be not supported by the eminent men who have now declared that they will take no part in it, the members of the profession in this country who will attend it will be very few."

We consider it as now certain that the European members of the Congress have, through their Executive Committee, the power to prevent any material interference with the organization and work of the Congress itself, but, while this does away with our fears lest the progress and usefulness of these great international scientific gatherings should be checked by the action in this country, it increases our anxiety as to the effect of this discord upon our reputation abroad, and on our associations at home.

The action of the Original Committee,—of the American Medical Association,—and of the New Committee, is now generally understood; and there does not seem to be much use in further comment and criticism upon what is past. The important question now is as to the future. Is there any way by which the impending disgrace can be averted? If there is, it must be such as will induce those who have withdrawn from the organization to return and coöperate heartily. To the best of our knowledge and belief, derived from an extensive correspondence and from personal interviews, there is but one way to do this, viz., by dropping the Code question entirely, confirming all the appointments of the Original Committee, and leaving to the enlarged Committee which it created, including the Presidents of the Sections, the work of making additional appointments, completing the organization, and carrying out the work to its completion. If this be done, we believe that questions of appointments, etc., will be settled to general satisfaction, and that, although the difficulties of the work will be greatly increased, the Congress will be, what we all desire it should be, a great success.

If this be not done, we do not believe that the Congress will meet in this country in 1887.

PEPTONURIA.

WHATEVER may be the value which will ultimately attach to the so-called delicate tests for albumen which have been introduced into urinology during the past three years, one of the most useful purposes they will have served is the calling of attention to the possibility of the presence of peptone in the urine. And, although, as a result of such attention a vast amount of information has been acquired in rela-

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tion to peptonuria, it is probable that we are still on the threshold of such knowledge. Indeed, we may go further and say that as yet we know not whether our information is altogether correct, or whether we may not even be compelled ere long to give up much of it and substitute it by other. At the same time it is our duty to our readers to furnish them with an accurate statement of the recent advances in medical knowledge, and we propose herewith to give a summary of what is now known concerning peptonuria and the tests therefor.

In the first place, it is well known that peptone is a proteid substance which is the final result of the digestion of albuminous food by the agency of the gastric juice in the stomach and by the pancreatic fluid in the duodenum. It may also be produced from albumen by the continued action of acids and alkalies, and it is said, also, by the decomposing action of bacteria, and the long-continued operation of a temperature of 268° to 290° F. It differs from albumen and hemialbumose or propeptone in that it is not precipitated by heat or nitric acid, by acetic acid combined with chloride of sodium, or with cyanide of potassium. Like albumen and propeptone, it is precipitated by tannin, corrosive sublimate, phosphorwolframic acid, Millon's reagent, and by potassiomercuric iodide and picric acid, both of which are among the recently suggested delicate tests for albumen; but when precipitated by the latter reagents it is redissolved by heating. It is characterized by the purple reaction its solution strikes with sodic hydrate and a little salt of copper. The sensitiveness of this so-called "biuret" reaction is increased by certain coloration of the fluid, and especially the yellow. So delicate is it that a solution so weak as 1 part in 1000 responds promptly. This reaction is shared by propeptone, while albumen produces only a blue coloration, under no circumstances a red or violet. It has been suggested that peptone bears the same relation to albumen as grape sugar to starch—that is, it is a hydrate of albumen.

Peptone is not present in healthy blood or normal urine, and even during digestion the portal vein contains but traces of it. Injected into the blood, it disappears from it very quickly, a certain proportion reappearing in the urine, while some is taken up by various organs of the body. These organs also appear to retain any small excess which may have been introduced into the blood from over-ingestion of meat. It would seem, therefore, that it is converted into albumen at the moment it is absorbed into the circulation, and is incapable of taking the place of albumen in the blood, although this has been alleged by Plosz, Maly, and Adamkiewicz. During health, too, the various organs of the body contain traces of it, but it is a constant constituent of pus, as was first shown by Hofmeister. It was found by Salkowski to be abundantly present in the leucæmic liver and spleen.

In testing for peptone in urine by Hofmeister's method (*Zeitschr. für Physiol. Chemie*, 1880, Bd. iv. S. 260, und Bd. v. 1881, S. 73), the peptone is precipitated by solution of tannic acid, either with or without previous treatment by acetate of lead, for the purpose to be named below. The precipitate, after twenty-four hours, is thrown upon a filter to which some tannic acid and magnesium sulphate have been added; the object of the latter being to prevent the peptones from being washed out of the precipitate. The precipitate is now thoroughly mixed in a capsule with saturated baryta water, and after the addition of a fragment of solid baryta heated to boiling. If care is not taken to mix intimately the precipitate with the baryta, resinous masses form during the heating, which interfere with the proper action of the baryta. After a few minutes the mixture is filtered, baryta water being again added, and thoroughly shaken with it until the fluid filters off from the dark colored precipitate, either colorless or slightly yellow. It now contains no tannic acid, as will appear on neutralizing the fluid and adding chloride of iron.

To the filtrate are now added a few drops of a solution of sulphate of copper, the mixture well shaken and filtered. If the filtrate is a bulk of four to five centimetres thickness, and shows a red or violet color, peptone is present.

The method with tannic acid also gets rid of propeptone, or hemialbumose.

v. Jaksch, who has made a very extensive clinical study of peptonuria, the results of which were published in *Zeitschrift für Klinische Medicin*, 1883, prefers to precipitate the peptone by phosphorwolframic acid, instead of tannic acid, by the following process, also suggested by Hofmeister: The urine, mixed with about one-tenth its bulk of hydrochloric acid, is treated with solution of phosphorwolframate of sodium, acidified with hydrochloric acid and filtered promptly, since in standing there is deposited on the slightly colored precipitate a layer of reddish flocculi, whence the coloring matter subsequently disappears. The precipitate is washed with a solution of sulphuric acid, three to five per cent. strong, then turned into a capsule, intimately mixed with baryta in substance, the mixture treated with a little water, and, after being warmed for a short time, filtered. The filtrate is then treated with copper solution as above. In this method no regard is paid to the presence of propeptone, and Salkowski advises that the urine be tested for this substance, and, if it is present, that it be removed by the process recommended by Hofmeister for the separation of albumen, which should, also, always be first separated in the following manner: 500 cubic centimetres of urine are treated with 10 cubic centimetres of a concentrated solution of ace-

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tate of sodium, and a concentrated solution of chloride of iron added, until the fluid acquires a permanent red color. The strong acid reaction is now neutralized, or nearly neutralized, by an alkali, condensed by boiling, and, when cool, thrown on a filter. If the iron and alkali are added in proper proportions, the filtrate is free from iron and albumen, as may be shown by adding acetic acid and ferrocyanide of potassium. A trace of iron does not, however, interfere with the test.

Mucin, the presence of which is shown by a cloudiness which arises on the addition to urine of acetic acid alone, must also be separated, and this can be done by adding a solution of neutral acetate of lead, until a thick, flocculent precipitate is produced. Filtration removes both the lead and the mucus. This may be done at the very beginning of the process, as recommended by Hofmeister, and practised in each instance by v. Jaksch. It has the advantage also of simultaneously decolorizing the urine.

Solution of sulphate of copper and sodic hydrate, or, what has been recommended as a substitute, Fehling's solution, directly applied to the urine, without previous treatment, cannot be regarded as a reliable test for peptone. So that a trustworthy, ready method for testing peptones does not exist, unless we adopt that of Dr. George Johnson, with picric acid.

We have mentioned that peptones, like albumen, are precipitated by picric acid; but, unlike albumen, the precipitate thus obtained is redissolved on heating. The same is true, however, of the acid urates and vegetable alkaloids, among which quinine and its allied derivatives are conspicuous. It is well known that the administration of ten grains of any of these alkaloids will speedily so influence the urine, that picric acid promptly develops in it the characteristic opalescence of albumen, which, unlike albumen, also disappears on being warmed. As Dr. Johnson says, the sediment of urates is readily distinguishable from that of peptones by the microscope, because the former are found to be made up of large granules of urate of sodium and uric acid crystals, while freshly precipitated peptones appear quite homogeneous under the microscope; but when, having been dissolved by heat, they are reprecipitated on cooling slowly, they contain exceedingly minute granules, which exhibit very actively the dancing Brownian movement. If, however, the liquid be cooled suddenly, by plunging the test-tube in cold water, the precipitate does not become granular until it has been allowed to stand for some hours. The difference in the fresh precipitate with the vegetable alkaloids and that of peptone, according to Johnson, is, that it is finely granular, while the freshly precipitated peptones are homogeneous.

Hofmeister suggests, too, a shorter, but coarser, test for peptones, wherein the urine is treated with an excess of solution of acetate of lead and filtered. The filtrate, which should remain clear, on the addition of acetic acid and ferrocyanide of potassium, is treated with one-fifth of its volume of concentrated acetic acid. To this is added a solution of phosphorwolframate of sodium, acidified with acetic acid. If a cloudiness makes its appearance within the first five minutes, peptone is present. If the urine does not contain peptone, it will remain clear for an hour or longer.

Quantitative estimation of peptone may be made by the polarimeter, for the details of which we must refer our readers to the textbooks.

Hereafter we shall have something to say as to the clinical significance of peptones.

CHERON'S TREATMENT OF CHRONIC PELVIPERITONITIS.

THE treatment of chronic inflammation of the pelvic peritoneum is in many cases tedious, and often very unsatisfactory. The pain, the tenderness, and the inflammatory deposits—the last in some cases simulating new growths, and not unseldom mistaken for them—are very slow in disappearing in many cases under methods of treatment hitherto employed. In consequence of these facts, we look with great interest upon a plan of treatment which Chéron has employed with remarkable success, and which he publishes in the June number of the *Revue Médico-Chirurgicale des Maladies des Femmes*. He uses hypodermatic injections of the crystallized phosphate of soda. The solution, which should be freshly prepared and carefully filtered, is made of one part each of crystallized phosphate and of sulphate of soda to twenty parts of distilled water. The quantity used for an injection is one drachm; it should be injected into the subcutaneous connective tissue, not into the subdermic. The injection should be made slowly, and massage of the part made for a minute or two. The injections are to be repeated every six or eight days.

PUNNING IN MANIA.

DR. SAVAGE, in his recent work, *Insanity and Allied Neuroses*, speaks of "rapid verbal association, punning, and verse-making" in mania. In regard to punning, he unfortunately does not tell us that the insane punsters had, previous to their illness, been addicted to this indulgence, and probably it is just to conclude that it is to be considered a manifestation of their mental disease.

This is a very important statement, but we cannot suppose that punning is, as a rule, an indication of insanity. Homer did not disdain punning, for it will be remembered that the wily Ulysses thus deceived the monster Polyphemus. Excellent puns, too, have come down to us from the good old days

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of Rome, while in modern times who can forget such manifestations of wit by Molière, Charles Lamb, and Thomas Hood? In our own country the most distinguished of literary physicians, rich in wit and wisdom, rich in fame, but richer in the love of all who know him, has occasionally contributed a sparkling pun to life's merriment. Another eminent literary physician who knows how to make fat and blood, also knows how to make a pun —one knowledge he has communicated to the profession, but the other he has not.

Of course, we cannot in the light of these illustrious examples for a moment think that all punsters are insane. But if a man makes bad puns—and we are sorry to say many puns are bad, bad because poor, poverty thus becoming a crime—is he to be regarded as crazy or criminal? There are not wanting those who unhesitatingly look upon such indulgence as one of the greatest crimes; a man who makes a bad pun is, according to them, ready for any minor wickedness, such as theft, arson, or murder. Others, indeed, go so far as to relegate all puns to dime museums and strolling minstrels. If one ventures upon the most innocent verbal play in their presence, he is soon made aware that he could with greater safety have trodden upon their corns, or spoken disparagingly of one of their most intimate friends, and is fortunate if he be not at once consigned to Coventry, or to Hades.

But let us be charitable; some one laughs at the weak punster's wit, some one applauds his effort; nay, he may, at times, "set the table in a roar"—truth compels us to say that at times "the table" roars most readily, and applauds boisterously the most trivial things. Now they who thus do, aid and abet the punster's immoral practice, and should be held to strict account at the bar of public opinion. He has become intoxicated by praise, like the village poet in Dr. Holmes's "Guardian Angel," who did not know how valueless his rhymes were until he attempted to sell them to a publishing house. He, himself, is possibly to be regarded as simply feeble minded in some cases, while in others it is probable that the indulgence is a manifestation of commencing insanity, and then a prompt removal to an institution for the insane, and not confinement to a gaol, is the proper remedy.

The view here taken will do more to repress the common practice of punning, than has the severe literary criticism to which it has been subjected. We wish to say, however, that the force of this criticism has been weakened by the inconsistent conduct of some of the critics. Sidney Smith, for example, asserted that puns were justly in very bad repute; and yet he, according to Southey, was "Joke-Smith to the *Edinburgh Review*," and certainly made many puns. This inconsistency between criticism and conduct is only to be explained by the fact that he was a preacher, not a practitioner. But returning, few men or women are willing to be thought crazy, and therefore they will avoid that which may excite suspicion. Dr. Savage has enlarged our knowledge of the disease, and opened the way for important reform.

So much for bad punsters The good ones will not be prodigal of their ware, but remember the wear advised by Jeffrey for one who has a blue stocking—a long petticoat.

HEMIALBUMOSE OR PROPEPTONE.

ANOTHER one of the proteid substances sometimes found in urine, and to which increased attention has been called by reason of the introduction of the so-called delicate tests for albumen is hemialbumose.

This substance is an intermediate product in the conversion of albumen into peptone, in the act of gastric digestion. It is therefore abundantly present along with albumen in the gastric contents, and, unlike peptone, is also found in the blood during digestion. It is identical with the albuminous substance known as Bence-Jones's albuminous body or Mulder's proteindentoxyd found by Virchow in the bone marrow in osteomalacia, and by Fleischer in normal bone marrow.

Hemialbumose, like albumen, is insoluble in alcohol; also insoluble in pure water, but very soluble in water containing only traces of acids, alkalies, or salts. It is not precipitated by heat from its watery solutions as is albumen, but if the solution be made strongly acid and concentrated salt solution be added thereto, it is precipitated. If the cloudy fluid be now heated it becomes transparent, but again turbid on cooling. A further large addition of salt maintains the precipitate in spite of heating. It is precipitated by pure nitric acid, but redissolved with the production of an intense yellow color on heating, and reprecipitates on cooling. An excess of nitric acid redissolves the precipitate even in the cold, with the production of the same orange-red color.

In these respects hemialbumose differs strikingly from both peptone and albumen. It is like peptone in that it exhibits the biuret reaction with an alkali and salt of copper, and like albumen in that it is precipitated by acetic acid and ferrocyanide of potassium.

In order to test the presence of hemialbumose the albumen must first be removed. This is accomplished by acidifying the urine with a few drops of acetic acid, adding about ⅙ its volume of concentrated salt solution, boiling, and filtering off the precipitate. The filtrate is then allowed to cool, and if a turbidity arises or is produced by the further addition of salt solution, which disappears by heating, and reappears with cold, propeptone is present.

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Hemialbumose is removed from fluids by adding acetate of iron and boiling, or by boiling with hydrated lead oxide.

Hemialbumose was first found in urine by Macynter and Bence-Jones, in the disease known as osteomalacia, and by Lassar in artificial nephritis.

REVIEWS.

A MANUAL FOR THE PRACTICE OF SURGERY. By THOMAS BRYANT, F.R.C.S., Member of the Council and Court of Examiners of the Royal College of Surgeons; Senior Surgeon to and Lecturer on Surgery at Guy's Hospital; Memb. Correspond. de la Société de Chirurgie de Paris. With seven hundred and twenty-seven illustrations. Fourth edition, thoroughly revised. 8vo. pp. 1026. Philadelphia: Lea Brothers & Co., 1885.

THE most cursory examination of this edition bears out the claim that it has been "thoroughly revised," while a more careful scrutiny reveals that much new matter has been added, and the old, in a measure, rearranged, so that a more natural sequence has been secured. Unlike the third American edition, this fourth one is an exact reprint of the fourth English edition, although the American publishers call attention to the fact that Mr. Bryant "has seen fit to accept many of Dr. Roberts's additions" which appeared in the previous edition.

This book is essentially what it purports to be, viz., a manual for the *practice* of surgery. In consequence, little space is devoted to the theory of surgery, but enough is said to enable the reader to treat all ordinary surgical affections with due reference to their pathology. Much more than any such qualified praise is due to that portion treating of intestinal obstructions and their operative treatment, where the best of all teaching—that drawn from an extended personal experience—is given. Probably no surgeon has ever performed such a number of colotomies as Mr. Bryant, viz., eighty-two; and few have, therefore such a right to dogmatize as to the value of this operation. It may be well, therefore, to introduce the conclusions at which the author has arrived.

1. "That in all cases of cancerous stricture of the rectum or colon, including the annular, which are not amenable to lumbar colectomy or anal excision, right or left lumbar colotomy is strongly to be advocated, with the well-grounded hope of relieving suffering, retarding the progress of the disease, and of prolonging life for five or six years.

2. "That lumbar colotomy is valuable as a curative operation in syphilitic and simple ulcerations of the bowel which resist other treatment, including cases of recto-vesical fistula, and that it is remedial in examples of volvulus of the sigmoid flexure, as well as of obstructions caused by tumors.

3. "That to secure these advantages it is necessary for the operation to be performed before the pernicious effects of obstruction occur."

We have always viewed with special favor the whole section upon intestinal obstructions, but the additions and alterations in the present edition have much increased its value. There are some points, however, which we regret the omission of, but which we cannot here specify. The illustrations are unusually good, being both clear and at the same time artistic. We would call attention to the section upon "Tumors," which, although perhaps good from a clinical standpoint, is certainly not in accord with modern views. We refer especially to the author's teachings as to the sarcomata, which are termed "Semi-malignant." Now we are unacquainted with any more *wholly* malignant growths than certain of the tumors now universally termed sarcoma, and the histological characters of which the author correctly describes. We can neither then agree as to their *semi-malignancy*, nor with the statement that they solely "return either in the spot from which they originally sprang or from its immediate neighborhood;" some of them do, but as a class, they behave far differently. It is true that the lymphatics usually remain uninvolved, but by means of the blood-current systemic infection too often occurs with frightful rapidity. Perhaps the author would call such tumors encephaloid carcinomata, but histologically from his own descriptions, they are sarcomata, and are universally so considered by pathologists. This perhaps is only a minor blemish, but it is apt to mislead the inexperienced, and is one, therefore, to which attention should be called.

Although written chiefly from an English standpoint, Bryant's *Surgery* is a fair work in which due credit is given to both foreign and American surgeons. It is peculiarly well fitted for the student or busy general practitioner who wishes to be taught the views of surgery held by foreign surgeons, but can hardly supersede text-books written by and for Americans. With these latter alone, the student is apt to obtain a too circumscribed view of surgery, but if he will supplement his reading by some such work as that under review, without extended study he will be enabled to gain something like a cosmopolitan view of both the science and art of surgery.

YOUNG FOLKS' PHYSIOLOGY—OUR BODIES, AND HOW WE LIVE; AN ELEMENTARY TEXTBOOK OF PHYSIOLOGY AND HYGIENE, FOR USE IN THE COMMON SCHOOLS, WITH SPECIAL REFERENCE TO THE EFFECTS OF STIMULANTS AND NARCOTICS ON THE HUMAN SYSTEM. By ALFRED M. BLAISDELL, M.D. 12mo., pp. vi. 285. Philadelphia: Cowperthwait & Co., 1885.

A LARGE number of States have recently passed laws requiring that, in the Public Schools, physiology and hygiene shall be taught with special reference to the effects of alcohol and narcotics on the human system. This demand has produced quite a large crop of books—good, bad, and indifferent—most of them written evidently to catch the market. They bear evidences of haste, and even in some cases of ignorance. We pointed this out in one notable case in our issue of March 15, 1884 (*Brand's Physiology*).

The present volume is an excellent example to the contrary. It is the work of a man who knows what he is talking about, and who also has the knack of the true teacher. His ideas are clear, and his language perfectly simple, so that any child of ordinary intelligence can understand him. Moreover, he has Agassiz's true idea of the method of teaching. He is not satisfied with

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a dry description, but has appended to the book a good chapter of "experiments," such as any teacher or scholar can easily make. This is a cardinal point. It is one thing to tell a pupil about the "animal" and "earthy" matter in a bone, but it is quite another thing to have him get two bones and burn one and soak the other in acid and see the results of the two processes for himself. The whole series of these experiments is equally simple and effective, for they direct the teacher and pupil in the method of studying the main facts of anatomy and physiology in the same objective way. We would suggest, however, that a sheep's eye would be, as a rule, more easily accessible than that of a codfish when it is desired to dissect that organ. An excellent glossary and a full index complete this well-written and useful volume, which we can commend unreservedly to school boards and teachers as just the thing they will want.

In the most difficult part of the book—the due appreciation of the effects of alcohol and tobacco—the author seems to have been very happy in stating the facts in a clear and non-partisan manner. He has shown the bad effects of both—especially of alcohol—without on the one hand trying to mitigate their evils, or, on the other, to exaggerate them for a purpose, as would be done by the fanatic. The book will do good most of all by its entire fairness.

We would like also to point out two or three errors. Thus, the gluteal muscles are spoken of as on the back of the thigh; Macé is written twice at least without the accented é; and, by a curious blunder, the pupil is spoken of as the "apple of the eye," whereas when we use that expression we mean by "apple" the whole "ball" of the eye.

We notice, also, as a merit, the reference to the *American Health Primers*, *Wilson's Hygiene*, and numerous other excellent and standard works as "collateral reading."

SOCIETY PROCEEDINGS.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, June 4, 1885.

THE PRESIDENT, B. F. BAER, M.D., IN THE CHAIR.

DR. BERNARDY reported a case of

GESTATION IN A SARCOMATOUS UTERUS, SIMULATING EXTRAUTERINE PREGNANCY.

On October 3, 1884, he was requested to visit Mrs. McG., delicate, age about thirty, married six months. She was said to be suffering from a cold. He found the patient up. Temp. 105°; pulse 130, with a high fever and a severe cough. Examination of the lungs revealed double pneumonia. At the same time, noticing the abdomen prominent, he inquired, and was informed that pregnancy was five months advanced. The abdomen was rather large for that period. On Sunday, October 5th, she complained of a sharp pain in the right inguinal region, the pain was excruciating, and demanded the administration of large doses of morphia before any relief was obtained. He found the right inguinal region filled by an immense growth reaching almost to the lower border of the liver. The uterus or what appeared to be the uterus was enlarged, and pushed well toward the left side. On vaginal examination, found the right side of the pelvis filled by a growth. At first thought he detected fluctuation, but closer examination showed it to be hard to the touch. The uterus was jammed well towards the left, and was immovable, the neck somewhat absorbed, the os tilted up behind the pubis. To reach it the finger had to be passed well upward; it was closed and soft. The patient had never had any uterine trouble, menses always came without pain; they never appeared after her marriage, which occurred one week after a period. Her health remained good for three months after marriage, when, while out walking, she was suddenly seized with a sharp lancinating pain in the right side of the abdomen. The pain was so great that she almost fainted, but being a woman of strong will, she finally, after suffering terrible agony, reached home, and went to bed. No physician was called in; next day there were slight traces of blood on her night dress. Under absolute rest the pain subsided, and at the end of a week she was about her household duties. The pain in the side returned if she over-exerted herself. Sexual intercourse was painful, and was followed by traces of blood the next day. Believing that the symptoms pointed to either extrauterine pregnancy, or a tumor complicating pregnancy, he asked Dr. Goodell to meet him. By the time the consultation was held, October 8th, a severe attack of peritonitis had commenced. This complicated matters as a close examination was impossible. On account of the distended and painful condition of the abdomen, it was impossible to trace any outline of the growth or uterus. It was decided that the symptoms and history pointed to extrauterine pregnancy, but that undoubtedly the uterus contained something, whether a tumor or child, in the present condition of the patient, it was impossible to decide; the leaning was toward a pregnant uterus. By October 16th the peritonitis was under control, the lungs no better. October 19th he was sent for, the messenger stating that there was a renewal of the peritonitis. He found the patient in active labor, the fœtus descending rapidly. In half an hour labor was completed. I readily detected the large growth filling the upper portion of the right side of the pelvis; the uterus was surrounded by a hard growth. The cervix was hard. From this time the lungs improved, but she remained extremely weak, and there was a constant dribbling of blood from the vagina. November 3d, the growth was still present and the cervix hard, and I began to think of malignant disease in connection with the tumor. I had applied, night and morning, to the abdomen, ung. hydrarg., belladonna, and iodine, equal parts. This seemingly had the effect of causing the absorption of the large growth, but the mass surrounding the uterus remained the same. November 27th, vomiting occurred and was arrested with difficulty; a bloody discharge from the vagina and a constant sore feeling over the region of the uterus, which was still toward the left side. The patient's condition was not good, she was extremely weak; the slightest exertion would exhaust her and bring on bleeding from the uterus. December 26th he found her suffering from pleurisy, the left pleural cavity full of fluid. January 1st abdominal dropsy had set in. A consultation with Dr. Goodell was held. A positive diagnosis of malignant disease was made.

Prognosis.—Death at any moment. She died suddenly the same evening while talking to her husband.

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Post-mortem examination, by Dr. A. E. Roussel, twenty-four hours after death; patient greatly emaciated. *Thorax:* A large amount of effusion completely filling up the left pleural cavity, while the cavity of the right side was partially filled; both lungs were compressed upwards. No adhesions. On section the lungs appeared mottled, and were hepatized in general appearance, but were otherwise healthy. *Heart:* On opening the pericardium found a moderate amount of serous fluid, vegetations on mitral valve—weight eleven ounces. *Abdomen:* Entire cavity was greatly distended with dark fluid full of broken-down lymph. The intestines were forced upwards; there were slight evidences of beginning peritonitis. A portion of the ileum on the right side presented a black unhealthy appearance bordering on gangrene. The uterus was increased in size. The outer surface presented an irregular mottled appearance, large veins covered its surface; at the fundus there appeared a spot about one inch in diameter, of a bluish tinge. On pressure by the finger the surface readily broke. Underneath was a cavity about the size of a large hickory-nut which did not communicate with the interior of the uterus. On opening the uterus its cavity was found to be almost obliterated, the tumor seemed to have entirely absorbed the true uterine tissue with exception of the neck. In the body of the tumor were observed small masses or growths varying in size up to that of an egg. The ovaries were small and seemed to have participated in the general disease. Microscopic examination proved the tumor to be of the adeno-sarcoma variety.

At first he was convinced that he had a case of extra-uterine pregnancy; but the peculiar hardness of the tumor made him doubtful. Here was a patient that had never had any uterine ailment. Marries, becomes pregnant; at the end of the third month, without any premonition, while quietly walking, is seized with pain of an excruciating nature in the right side, goes to bed and remains quiet, the next day blood flows from the vagina. She remains comparatively well for two and a half months more, when she is again suddenly seized with pain in the same side, followed by peritonitis. A tumor is found in the affected sides, the uterus is enlarged, but not sufficiently so for a five and a half months' pregnancy, the os giving no signs of that softening which should accompany pregnancy. Could we have a group of symptoms more allied to those of extrauterine pregnancy?

DR. J. M. KEATING made some remarks on

INFANT FEEDING.

He said: At my request, Dr. Charles Potts has instituted a series of experiments which have a decided practical value, and we hope to present them to this Society at an early date, but I desire to place on record a statement of the results so far reached, which appear to be interesting and important. The question often arises, Is it of advantage, or not, for an infant to be partly nursed and partly bottle-fed? What action has milk upon starch, if any? To answer this the following tests were made: (1) Sample of milk composed of the milk of several women. A quantitative estimation of the sugar in it by Fehling's method showed 6.84 per cent. Ten c.c. of this milk were then taken and ½ gramme of powdered starch added, allowed to stand at a temperature of 99° for thirty minutes, after which 5 c.c., diluted with 45 c.c. of distilled water, were tested and showed 8.62 per cent. of sugar. The other 5 c.c., after standing sixty minutes, gave 9.09 per cent. (2) Another sample, found to contain 7.14 per cent. of sugar, had a ½ gramme of powdered starch, as in No. 1. In thirty minutes it gave 9.803 per cent. of sugar in 5 c.c. The other 5 c.c., after remaining sixty minutes, gave 8.62 per cent. Possibly part of the sugar deposited and was drawn off with the first 5 c.c. (3) Another sample showed 6.32 per cent. of sugar, and, after adding the starch as before, gave in the first 5 c.c. 8.19 per cent. The next 5 c.c. 7.93 per cent. These investigations showing that woman's milk gave an increase of sugar after digesting with starch. (4) A sample of cow's milk was tested and found to contain 3.87 per cent. of sugar; to this was added a ½ gramme of starch to 20 c.c. At the end of thirty minutes 5 c.c diluted with 45 c.c of distilled water showed no increase of sugar. (5) A sample of cow's milk gave 4 per cent. of sugar, and was treated as before, but at the end of thirty minutes, and then sixty minutes, it gave the same result. (6) Another sample of cow's milk gave 3.703 per cent. of sugar; was treated as before with the same amount of starch. In thirty minutes 5 c.c. gave same result; in sixty minutes 5 c.c. gave same result. These investigations showing that cow's milk gave no increase of sugar after adding starch. Does the acidity of cow's milk prevent the sugar change? Does the sugar change continue in an acid medium? (7) Took another sample of human milk—from one woman. It yielded 6.25 per cent. of sugar; added starch as before. In thirty minutes 5 c.c. gave 7.14, and in sixty minutes 5 c.c. gave 7.6 per cent. Took 10 c.c. of this milk (6.25 per cent. sugar) and added a few drops of chemically pure dilute hydrochloric acid, enough to acidulate it faintly, and then added ½ gramme of starch, and let it stand as before. In thirty minutes 5 c.c. gave 6.41 per cent., and in sixty minutes 5 c.c. gave 7.35 per cent. of sugar. (8) Another sample of woman's milk, without starch, gave 6.17 per cent.; with starch, 7.24 per cent, Ten c.c. of the same acidulated with hydrochloric acid, chemically pure, diluted, gave in thirty minutes 7.35 per cent. In these tests 10 c.c of Fehling's solution were used with 40 c.c. of distilled water.

If future investigations prove the correctness of these statements, we may safely assert that the nursing woman may supplement her breast milk with some well-prepared, digestible form of food containing a small quantity of starch advantageously, and also that the amylolytic ferment will remain active in the slightly acid stomach of the infant.

CHICAGO GYNECOLOGICAL SOCIETY.

Stated Meeting, May 29, 1885.

THE PRESIDENT, H. P. MERRIMAN, M.D., IN THE CHAIR.

DR. FRANKLIN H. MARTIN presented an inaugural thesis entitled

THE NORMAL POSITION OF THE UTERUS AND ITS RELATION TO THE OTHER PELVIC ORGANS,

in which he opposed the extreme theories of Schultze, Fritsch, and Savage, for the following reasons:

1. In extreme anteversion, the wave impulse would

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strike the posterior broad surface of the body of the uterus, and drive it down upon the bladder and anterior wall of the vagina, while, on the other hand (the perpendicular theory of Savage), the anterior broad surface of the body would receive the impulse to an equal disadvantage, displacing the uterus backward and driving the cervix downward, while if the uterus occupied the position between these two extremes, the narrow crest of the fundus would receive the impulse in the line of the axis of the uterus and all the force would become equally distributed through all of its supports. Here, too, the organ would not so directly receive the whole impulse, as it would be equally dispersed upon its sides and the posterior ligaments and anterior supports, and its lateral attachments would receive to an equal extent, their portion of the impulse.

2. The manner in which the bladder collapses, to our mind, precludes the possibility, or at least the probability of the uterus occupying normally the position of extreme anteversion. The bladder, when collapsed, or when empty, is a triangular-shaped body—not flat like a plate: the base corresponding to its peritoneal surface, the apex corresponding to the urethra. The posterior or inferior surface corresponds to the anterior wall of the vagina, to which it is intimately attached; the anterior wall corresponds to the symphysis, to which it is loosely attached. It is readily seen, then, that the bladder distends only in the direction of the peritoneum, or its one free surface. According to the extreme anteversion theorists, the free surface of the bladder and the uterus are in apposition. If such be the case, the uterus changes its position constantly, as the bladder normally relaxes or contracts,—this seems to us very improbable. We believe that this space is usually filled with the light coils of the small intestines.

3. The broad ligaments receive their external attachments at a point about equidistant from the centre of the sacrum posteriorly, and the pubic junction anteriorly, in such a way as to divide the plane of the brim of the true pelvis into about equal halves. If the body of the uterus occupies a position in the centre of the pelvis on a direct line with the ordinary attachments of these ligaments, which it is at least rational to believe is the case, it occupies a position between the perpendicular of Savage, and the extreme anteversion of Fritsch.

4. With extreme anteversion, the cervix, with the fundus occupying a position behind the symphysis would necessarily have to occupy a position far back in the pelvis, within three-fourths of an inch of the sacrum,—with a normal conformation of parts, this is impossible without interfering with the rectum.

5. If we take the measurements of Foster and Litzmann into consideration, we can at once demonstrate the impracticability of the position given by Savage—*i. e.*, the perpendicular. The cervix occupies a position, normally at a distance of one and one-half inches from the sacrum, the rectum intervening. It is impossible for the uterus to assume anything like a perpendicular with the cervix in this position, on account of the anterior curve of the sacrum above, which necessitates an anterior version from the perpendicular of at least fifteen degrees.

PROFESSOR W. W. JAGGARD was pleased with the selection of the topic, and the method of discussion, but did not agree with Dr. Martin in all his conclusions. Bandl had made a correct statement of the diversity of opinion upon this subject, in his essay on "The Normal Position and the Normal Relationship of the Uterus, and the Pathologico-anatomical Causes of the Symptom of Anteflexion" (*Archiv. für Gynækologie*, Band xxvi. Heft 3, 1884), read before the Gynecological Section of the Versammlung deutscher Naturforscher und Ærzte in Freiburg, September, 1883. "In the course of time, almost every position of the uterus, with the exception of prolapse, has been accepted as the normal by different anatomists and gynecologists, and particularly by the more eminent ones."

Kölliker (1882), from a series of examinations of the cadavers of girls, from ten to eighteen years old, has concluded that the uterus is not bent, nor curved upon itself, but is straight, and that its long axis corresponds with the principal axis of the small pelvis. Its position is variable within certain limits, depending upon the condition of the bladder and rectum. This opinion coincides closely with judgments of Kohlrausch (1854), Le Gendre (1868), Freund, Carl Braun (1857), J. Marion Sims (1855); Langer (1881). Professor Paul F. Mundé, in his recent excellent work on *Minor Surgical Gynecology*, favors these views to the extent, that he says, "with the woman in the recumbent position, the examining finger is unable to touch the body of the uterus before or behind the cervix, if the uterus is normally situated."

Bandl, in the paper to which allusion was made, confirms Kölliker's view. The evidence he furnishes is of a high order. His methods of investigation were:

1. The attentive examination of living women.

2. Examination and observation before and during the operation of laparotomy.

3. The bimanual examination of the organ in cadavers, before and after abdominal section.

4. The comparative anatomical examination of many *uteri*.

DR. PHILIP ADOLPHUS thought, with Emmet, that "there is no common standard by which to determine the proper position for the uterus in all women, but that in each individual there is a point, or plane, in the pelvis which the uterus should occupy when she is in a state of health and not pregnant." He referred in detail to Emmet's "normal or health line," and to the pathological character of displacements above or below this line. It is a matter of relative insignificance whether or not the long axis of the uterus coincides with any particular pelvic axis. In the concrete case, the sensation of the individual will indicate a normal or abnormal position.

PROF. DANIEL T. NELSON said that the uterus is fixed in a position of unstable equilibrium by the annular and other ligaments. It can move to a certain degree in every direction, and return to its original, normal position. Displacement above or below Emmet's "health line" is productive of symptoms, if the uterus remains fixed in such a position, as is usually the case when violence causes the dislocation. Departure from the principal axis of the pelvis is a comparatively insignificant movement, viewed absolutely. The vagina and perineum are not primary supports of the uterus, and only assume this function when, as the result of the relaxation of the proper uterine supports, the organ is displaced downwards. This secondary character of

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the vaginal and perineal support was capable of demonstration by the examination of a woman in the erect attitude. Upon coughing or sneezing the uterus will descend and receive support from the vagina and perineum, only to regain its original position when the excitant is removed. This remark applies exclusively to normal organs in normal position.

He wished to emphasize the statement that the rectum is not the normal receptacle for the feces. Anatomy and physiology teach that in the normal condition the gut is empty up to the sigmoid flexure. The sigmoid flexure is a sort of valve to retain feces. He narrated the history of a case of retention of urine in a puerperal woman, in which the bladder was displaced towards the left iliac fossa, while the uterus was directed towards the right.

PROF. CHARLES WARRINGTON EARLE related the history of a case of retention of urine in a puerperal woman, the bladder displacing the uterus upwards and backwards. Upon the introduction of a catheter, four quarts of urine were evacuated and the pelvic viscera returned to their normal relations.

DR. EDWARD WARREN SAWYER said the uterus had great latitude of movement antero-posteriorly and laterally; elevation above or depression below the normal plane, even to a slight degree, was productive of pain. The introduction of a pessary, which merely elevated the uterus when partially prolapsed, without altering flexion, is sufficient in many cases to afford complete relief. While a student he had taken plaster casts of the vagina. Such casts were of uniform shape, while they differed in size. They were curved, convex posteriorly, concave anteriorly. They were never shaped like an S. The curve did not correspond to that of the anterior surface of the sacrum, but to the floor of the pelvis.

DR. H. T. BYFORD thought Dr. Sawyer's experiments were faulty. When plaster of Paris was injected into the vagina, with the rectum empty, the vagina would act exactly as the rectum would under similar conditions.

CORRESPONDENCE.

THE ORGANIZATION OF THE INTERNATIONAL MEDICAL CONGRESS.

[THE accompanying letter has been received in this city, and is published for the information of the American profession, as it gives an authoritative statement concerning the manner of organizing preceding congresses, as well as the general understanding at Copenhagen in reference to the organization of the Washington Congress.

Sir James Paget, as is well known, is a member of the present Executive Committee of the Congress, and the President of the London Congress, and the immediate predecessor of the late Prof. Panum in the Presidency of the Copenhagen Congress, and he, therefore, speaks with the highest authority concerning all matters which pertain to the rules and customs of the Congress.—ED.]

1 HAREWOOD PLACE, HANOVER SQUARE,
LONDON, July 22, 1885.

DEAR DR. HAYS: I am very sorry to learn from some of your journals, as well as from letters which I have received, that there are serious differences of opinion among the members of our profession in your country as to the arrangements to be made for the International Medical Congress which it is proposed to hold in Washington in 1887. The deep interest which I feel in the Congress makes me venture to write to you in the hope of helping towards a right decision of some of the questions in dispute; and chiefly, by stating what I believe to have been the custom at former meetings.

I believe that a principal question relates to the authority, if any, which was given by the Congress at Copenhagen in 1884 to the gentlemen who conveyed the invitation that the next meeting should be held in the United States of America.

I believe that it has never been considered that the members at one Congress should give any formal authority for any part of the organization of the next. At each meeting some place has been named at which it was deemed desirable that the next should be held; and at the same time, or soon afterwards, some persons of high repute in that place have been asked to take such steps as they might deem necessary or most likely to promote a successful meeting.

Thus, after the Congress at Amsterdam, in 1879, the President, Professor Donders, wrote, in the first instance to Sir Joseph Lister and Sir William Bowman, and by them, and those whom they asked to act with them, the first and all the principal subsequent measures were adopted for the promotion of the meeting in London. Sir Risdon Bennett, the Chairman of the Executive Committee, communicated to Professor Hannover and Professor Panum, of Copenhagen, the desire that the next meeting might be in one of the chief cities of Scandinavia; and those gentlemen, and others acting with them, began and had the principal part in all the arrangements for the Congress in Copenhagen.

I fully believe that it was understood at Copenhagen that the same course would be pursued in the organization of the Congress to be held at Washington. I was at the General Meeting at which, after some discussion, the majority of the members present expressed the wish that the next Congress should be in the United States; and I have no doubt that it was expected that the distinguished American gentlemen there present would obtain the coöperation of the most eminent of their professional brethren, and would, with them, make all the arrangements which they should deem best.

Certainly it was not supposed that the Congress would be regulated, with any degree of exclusiveness, by the members of one medical association, however numerous; and I think it quite as certain that, if this had been thought possible, the proposal that the next meeting should be held in the United States would not have been adopted.

I am sorry, also, to feel sure that if the Congress be not supported by the eminent men who have now declared that they will take no part in it, the members of the profession in this country who will attend it will be very few. And in this opinion, as well as in all that I have written here, I have the concurrence of several of the most influential of the London Congress with whom, before this writing, I consulted.

Believe me, dear Dr. Hays,

Most truly yours,

JAMES PAGET.

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POISONING WITH CANNABIS INDICA, WITH RECOVERY.

To the Editor of THE MEDICAL NEWS.

SIR: In *The Medical Record* of July 11, 1885, Dr. Thomas W. Lauterborn, of Newark, N. J., records "A Case of Poisoning by Cannabis Indica, with Recovery." As the symptoms in these cases are at least alarming to the family, I submit a brief account of a case which came under my observation:

For some time, like "Ludlow," I had been taking the drug to note cerebral effects. A friend of mine, Mr. X., volunteered to be a subject, that I might record physiological symptoms. By mistake, he swallowed pills which represented over thirty grains of ext. cannabis indica. I was unconscious of the error until about one and a half hours afterward, when my friend had entered the stage of excitement, and spoke of dual consciousness, etc. I had previously used emetics upon myself without avail, so gave Mr. X. about two ounces of lime juice. Within ten minutes the symptoms subsided. He was soon himself again; complained only of drowsiness and a heavy feeling in the head. Retired, slept soundly, went to business next morning, "feeling none the worse," as he said, "for last night's dissipation."

On discovering the error I felt the need of giving an antidote, as twenty grains of the same extract previously produced, in my own case, after the stage of excitement, thirty-six hours of deep sleep. I have used lime juice on myself to prevent the drug entirely controlling my will.

Prof. Alfred Stillé mentions the antidotal effects of lime and lemon juice in the United States Dispensatory under the head of Cannabis Indica.

Very respectfully,

J. ALBAN KITE, M.D.

NANTUCKET, MASS., AUG. 2, 1885.

NEWS ITEMS.

NEPHRECTOMY AND NEPHROLITHOTOMY.—On July 25th, MR. KNOWSLEY THORNTON performed abdominal nephrectomy for cystic kidney at the Samaritan Free Hospital. The patient, aged twenty-two, had been under the care of Mr. Manley Sims. A drainage-tube was inserted into the loin, and removed on the second day; the patient is now convalescent. On July 27th, the same operator removed a smooth calculus, weighing two ounces, from the left kidney of a young woman who had been under the care of Dr. George Johnson. The case was supposed to be an instance of strumous kidney in its earliest stage, and the operation was commenced as in abdominal nephrectomy; but, as soon as the kidney could be touched, it was found to contain a stone, and strong adhesions prevented its removal. The calculus was, therefore, extracted, and a glass tube placed in the abdominal, and an India-rubber tube into the lumbar, incision.—*Brit. Med. Journal*, Aug. 1, 1885.

PUBLIC OPINION ON THE CONGRESS ORGANIZATION.—We cannot discuss the merits of this far from edifying quarrel, but we are too greatly interested in the International Medical Congress not to raise our voice in protest against a state of matters which is both a professional scandal and a serious peril to the continued existence of the Congress. Hitherto it has been considered binding upon all participating in the Congress that medical politics shall be entirely excluded from all its proceedings. But apart from that, we must impress upon our American friends the simple consideration that unless the whole profession in the United States combine cordially in the work of the Congress the meeting in Washington is foredoomed to failure. Party spirit is so alien to the whole spirit of the International Congress that a large proportion of those who have previously joined in the meetings would certainly, and with justice, refuse to visit the United States to be the guests of a faction. But we have too high an opinion of our transatlantic friends to believe that this unseemly quarrel, which is disgracing them throughout Europe, will be allowed to continue. We trust that moderating influences will be brought to bear upon both parties, and that, forgetting the past and their own personal predilections, they will cordially unite to promote the success of the meeting in 1887. If, however, the breach now formed is allowed to widen and deepen, it will be the duty of the officers of the Congress in Copenhagen to seek at once an invitation from some country in which the medical profession will not find it impossible to combine for international purposes.—*The Lancet.*

We are not surprised, and must confess being glad, at seeing with what almost unanimous action on the part of the leading members of the profession the result of the Chicago session of the newly appointed Committee has been met. The resignation of nearly every prominent appointee on the full committees and Sections made at that session shows a feeling of dignity and self-respect, and the fact that so many physicians in different parts of the country have expressed their sympathy with that action is plainly indicative of a feeling that something is more than wrong in the position taken by the American Medical Association at its late meeting in New Orleans. The thing to be sorry for is not the fact of these meetings in different cities, and the action there taken by the doctors present, but the fact that all this was made a necessity by the personal ambition of some men who felt that they had been slighted. —*Virginia Medical Monthly.*

It is very well understood that the disturbance at New Orleans was incited by disappointed personal ambitions. The Code and geographical distribution have been used to arouse opposition to the arrangements of the first Committee.—*Boston Medical and Surgical Journal.*

The original committee had done good work in perfecting the necessary arrangements to make the Washington meeting a successful one; hence, to be confronted with the ostensible condemnation of the American Medical Association, led and controlled at New Orleans by a few men of doubtful honesty of purpose, is a burning shame and disgrace. We were in attendance at the New Orleans meeting, and can assure the profession that the sentiment which the meeting seemed to express was not the will of the great majority of the delegates present, but was the secret manipulations of a half-dozen or less, who forced the issue upon the passive and more considerate men, who allowed themselves unwittingly to be imposed upon by the misrepresentations of those who have little if any interest in the welfare of the Association. It is to be hoped, however, that there may yet be a concerted action, and that the Washington meeting, now almost a hopeless failure,

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may have instilled into it new life. The best that can possibly be done will not now relieve the matter entirely of the odium which the disreputable conduct of the men referred to have heaped upon it.—*Kansas City Medical Record.*

The officers of the Congress, as selected by the New Committee, are very generally refusing to serve; at least such is the case with those from Philadelphia, Boston, Washington, Cincinnati, and Baltimore, while numerous other resignations have come in from other cities. Many of the most important Sections have thus been left without officers. Five of the original Committee of eight have resigned, including Dr. Billings, and the Secretary General has also declined to serve. Matters have, indeed, assumed such a shape that no one, with any self-respect, can afford to take the places thus left vacant; to be a *second choice*, even under the most favorable circumstances, is always sufficiently humiliating, but to consent to be such in the present crisis, would certainly indicate an utter absence of professional pride.

The New Committee are trying to shift the blame, or responsibility, for their action—in throwing *out* all the New Code men, and putting themselves *in*—upon the impersonal shoulders of the American Medical Association. This is the height of unkindness; for the members of this Committee were, most of them, the very persons who led the poor old Association to take the unwise action it did, and their zeal in so doing resulted in their appointment on the Committee; in other words, it is the old story over again of the monkey, the cat, and the chestnuts, only the monkey in the fable was satisfied with the results which he had obtained at the physical expense of the cat, and did not attempt to attach to her any moral obloquy for her compulsory act.

The cry against the "New Code" men was all bosh. It was raised at New Orleans simply to divert attention from the real purpose of those who uttered it, on precisely the same principle as the matador flaunts his red flag in the face of the bull. A few sharp and unscrupulous politicians—who had no claim to recognition in the organization of the Congress, and had hence received none—used that cry as a means of foisting themselves into prominence. They succeeded in their *ruse*, but "vaulting ambition o'erleaped itself," and the Congress, under their management, is hopelessly fated. They have come to a realizing sense of this fact, and, anxious to stand from under, are now wildly endeavoring to make themselves, and others, believe that the blame for the failure must rest on those who have withdrawn! They may deceive themselves by such audacious claims, but surely no one else.—*Columbus Medical Journal.*

REGULATIONS PRESCRIBED BY THE MINISTER OF THE INTERIOR OF RUSSIA, FOR THE SANITARY CONTROL AND SYSTEMATIC DISINFECTION OF VESSELS ARRIVING FROM COUNTRIES AFFLICTED WITH CHOLERA.—1. All vessels arriving from countries afflicted with cholera are subject to the "observation" prescribed by the Ministry, for fourteen days, in the quarantine harbor.

2. The time of the observation is reckoned from the date of the placing on board of the quarantine guard.

3. The observation consists in keeping the vessel, her crew, passengers, supplies, and cargo under the supervision of the quarantine authorities, and without any communication with other vessels, people, or the shores, until her admission to traffic is found to be perfectly safe.

4. If, upon an examination by the quarantine authorities of the crew and passengers, and an inspection of the vessel and cargo, the master, holding a "clean bill of health," signifies his consent to undertake, at his expense, and under the direction and supervision of the quarantine authorities, the proper systematic disinfection of the vessel, then the observation terminates in seven days, including the time necessary for putting the vessel into proper sanitary condition.

5. The systematic disinfection must be applied to: rags of every description, bedding and clothing (particularly those having been in use, and remaining soiled), excreta of animals, offal of every description, and particularly of animal and vegetable origin, hides, hair, bristles, feathers, wool, felt, and the like; the rooms and spaces occupied by the crew and passengers, and the above enumerated things; the hold of the vessel, and all the persons, without any exception, on board the vessel.

6. The systematic disinfection consists in the following: Offal of every description, and all soiled articles capable of holding the contagious principle of cholera, which are of no value, or which cannot be disinfected, are subject to immediate destruction by burning, or sinking into the sea.

7. Bedding and underclothing, and similar articles, must be washed in either boiling water or boiling lees, and then thoroughly dried and aired in open air.

8. All the berths of the crew, and cabins of the passengers, and all the articles of furniture therein, and all the space occupied by so much of the cargo as is subject to disinfection, must be thoroughly cleansed by means of brushing, scrubbing, and washing with boiling water, and subsequent drying and airing.

9. The hold of the vessel must be disinfected in the following manner: the hold is connected by means of a length of hose with the forcing arm of a pump, a stream of sea water is poured on each part to be washed, which must be preliminarily scraped and scrubbed; the washing can be considered as sufficient only at the moment when the water pumped out of the hold is as clean as that last pumped in, whereupon all the compartments of the hold are to be abundantly and protractedly aired, using, if necessary, an air pump. Sailing vessels, which have no steam pumps of their own, may use the pumps of steam tugs and other similar vessels in port.

10. All the persons on board must wash themselves with green soap (take a common bath) and put on disinfected clothing.

11. Vessels with foul bills in regard to cholera, and also vessels assimilated thereto, are indispensably subject, besides the systematic disinfection, to measures of quarantine disinfection.

12. For quarantine disinfection the following means must be used: 1, an aqueous solution of carbolic acid (1 : 18); 2, an aqueous solution of bichloride of mercury (1 : 1000) and 3, aqueous vapor at a temperature of not less than 100° C.

13. All articles enumerated in section 7, when on board of vessels with foul cholera bills, must be disinfected by means of carbolic acid or hot vapor. The

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articles must be either submerged for forty-eight hours in the carbolic acid solution (1 : 18), or be subjected to the action of hot vapor having a temperature of not less than 100° C. The vapor is introduced into the spaces occupied by the articles for a length of time proportioned to the nature of the articles, and other circumstances: for objects easily permeable, not less than one hour; for less permeable objects, two hours at the least. The time will be reckoned from the moment when the temperature of the vapor coming out of the room operated upon will have reached 100° C. Upon the completion of the processes of disinfection, the articles subjected thereto must be washed, dried, and aired in the manner described in section 7.

14. On vessels with unclean bills, the rooms specified in section 8 must be disinfected by means of carbolic acid solution (1 : 18), the ceilings, walls, floors, and other parts and objects are to be scrubbed with mops or rags soaked in the solution, or else the rooms must be subjected to the action of hot vapor, as described in section 13.

15. The disinfection of the hold and its contents is to be effected by means of corrosive sublimate, according to the greater or less quantity of water accumulated in the hold, allowing one pound of sublimate for each thousand pounds of water in the hold; 1¼ to 2½ pounds of sublimate are to be dissolved in a wooden vessel, in 25 to 50 pounds of water. A complete solution, with the assistance of constant stirring, will require about two hours. This solution is poured into the water in the hold, and is carefully mixed therewith by stirring for at least an hour. Each separate compartment of the hold must be thus disinfected. Such compartments in a hold as are connected by hatches may, upon the opening of the hatches and the establishment of a thorough communication between them, be included in one operation.

In order to ascertain whether this disinfection is equal to its object, the following test is to be made: Take samples of the disinfecting fluid from various parts of the hold, dip into them the ends of strips of copper made clean by rubbing with polishing paper, or by sulphuric acid, and see whether, upon remaining for two minutes in the liquid, and being taken out, the ends of the strips are covered with a distinct gray film, which may be easily rubbed off. If no such film appears, the disinfection must be held to be unsatisfactory, and must be continued by fresh additions of sublimate solution, and stirring of the water in the hold, until it yields the indicated reaction upon the copper strip. After the saturation of the water in the hold, as above described, it must be left to stand for twenty-four hours. After it has stood in the hold for at least twenty-four hours, the disinfected water must be pumped out, and sea-water pumped in, in a quantity equal to that pumped out. In order to remove the disinfectant as thoroughly as possible, the hold must be filled with sea-water and emptied, alternately, at least three times within the succeeding three days.

A COMPARISON BETWEEN THE BRITISH AND THE AMERICAN MEDICAL ASSOCIATION.—*The London Medical Times*, in an editorial upon the late meeting of the British Medical Association, says: "It must be admitted that, except for occasional lapses, both the Association and the journal which forms its *raison d'être* have been conducted with a discretion amounting almost to genius. The lamentable muddle into which the sister Association in the United States has thrown the medical profession in that country, has come upon us as a revelation, to make us grateful for the policy which has kept our own Association free, on the whole, from the machinations of self-seeking wire-pullers, and has kept a sufficient place of honor for the scientific leaders of the profession. Reading of what has recently happened across the Atlantic, we ought to be thankful that the powers of our own Association have not been abused, as they might have been, to the forcing upon us of leaders whose only claim to leadership is skill in the lobby."

UNIVERSITY OF VERMONT.—Dr. Leroy M. Bingham, of Burlington, Vt., has been appointed Professor of Surgery in the University of Vermont, to succeed the late Dr. J. L. Little, of New York.

DR. GIOVANNI BATTISTA SORESINA, founder of the *Giornale Italiano delle malattie Veneree e delle Pelle*, died recently at the advanced age of eighty-two.

PROF. VOLKMANN.—The honor of nobility has been conferred on Dr. Richard Volkmann, Professor of Surgery in the University of Halle.

DR. LAZAREWITCH, the eminent Professor of Obstetrics and Gynecology in the University of Kharhoff, having occupied the Chair for the full legal term, has been appointed Emeritus Professor.

PROFESSOR MILNE-EDWARDS.—The death, at Paris, of this eminent professor, at the advanced age of eighty-five, is just announced. He was born, of English parentage, at Bruges, in 1800, and studied medicine at Paris. In 1841, he was elected Professor at the Jardin des Plantes, eventually succeeding Geoffrey St. Hilaire. He was a Grand Officer of the Legion of Honor. His services to science are well known, and his most important contributions are contained in the twelve volumes of his *Leçons sur la Physiologie et l'Anatomie Comparée de l'Homme et des Animaux* (1857–1877).

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM AUGUST 4 TO AUGUST 10, 1885.

J. M. BROWN, *Surgeon*, CLARENCE EWEN, A. W. TAYLOR, *Assistant Surgeons*.—Ordered to rejoin their proper stations in the Department of the Platte.—*A. G. O., No. 7, Division of the Missouri*, August 1, 1885.

G. L. EDIE, and C. S. BLACK, *Assistant Surgeons*.—Ordered to rejoin their proper stations in the Department of Texas.—*A. G. O., No. 7, Department of the Missouri*, August 1, 1885.

WILLIAM D. DIETZ, *First Lieutenant and Assistant Surgeon*.—Ordered from Fort Selden to Fort Stanton, N. M.—*S. O. 111, Department of the Missouri*, July 31, 1885.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

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THE MEDICAL NEWS.

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ORIGINAL LECTURES.

SOME FORMS OF MYELITIS, THEIR DIAGNOSIS FROM EACH OTHER AND FROM HYSTERICAL PARAPLEGIA.

Two Clinical Lectures delivered at the Philadelphia Hospital.

BY CHARLES K. MILLS, M.D.,

NEUROLOGIST TO THE PHILADELPHIA HOSPITAL; PROFESSOR OF DISEASES OF THE MIND AND NERVOUS SYSTEM IN THE PHILADELPHIA POLYCLINIC AND COLLEGE FOR GRADUATES IN MEDICINE, ETC.

(Reported by William H. Morrison, M.D.)

LECTURE II.

GENTLEMEN: When we last met I considered myelitis in general, and presented to you cases both of diffused myelitis and subacute generalized myelitis of the anterior horns, particularly dwelling upon the latter disease. I shall now discuss (with Case 2 of last week's lecture again before us):

1. The diagnosis of subacute or chronic generalized myelitis of the anterior horns (poliomyelitis, anterior subacute or chronic) from some other forms of myelitis and from spinal congestion.

2. The diagnosis of subacute or chronic generalized myelitis of the anterior horns from hysterical paraplegia.

3. The diagnosis of hysterical paraplegia from forms of spinal disease other than subacute or chronic myelitis of the anterior horns.

Acute anterior poliomyelitis, better known as spinal infantile paralysis, or the essential paralysis of children, and also sometimes spoken of as the acute atrophic spinal paralysis of children, is a disease which has now been long described, and is quite thoroughly understood. Most educated physicians would recognize it without trouble. A disease essentially the same occurs, but much more rarely, in the adult—the acute spinal paralysis of adults. In either of these forms of disease, after an acute onset, with fever, and sometimes with diarrhœa, vomiting, twitching, tremors, and even convulsions, marked paralysis of variable distribution, but usually of a few muscles or groups of muscles, is rapidly developed. Some improvement of the paralysis nearly always takes place, but complete restoration is not common. The muscles which remain paralyzed become flaccid, rapidly atrophy, become cold and dusky, show the reactions of degeneration, and in unfavorable cases eventually cease altogether to respond to electricity. Both the skin and tendon reflexes are much impaired or absolutely abolished; there is arrest of development of the bones; and striking deformities of the joints and limbs often occur. In the adult the disease differs from the affection as seen in children mainly in the fact that the trophic changes and deformities are not so decided in the former because of the fuller development of the bones, joints, and ligaments involved. This is a rapid sketch of the infantile paralysis, already, no doubt, familiar to most of you.

The case before you last week and again to-day, and the one whose history I read at the last lecture, differ from cases of these familiar types, in that the cases of subacute or chronic generalized myelitis of the anterior horns occur usually in adults, and rarely in children; they are more general and more uniformly bilateral in their manifestations; the paralysis extends from point to point, usually from below upwards; and, finally, in that the tendency to complete recovery is greater. (Bramwell's *Diseases of the Spinal Cord.*)

In order to diagnosticate subacute myelitis of the anterior horns from *diffused myelitis*, acute or chronic, a careful study of the symptoms is all that is necessary. In diffused myelitis, as in the case of arsenical paralysis which I have shown, you have not only paralysis, absence of reflexes, trophic changes, and the reactions of degeneration, which are present in the woman before us, but, in addition, well-marked disturbances of sensation; because, in diffused myelitis, there is involvement of all parts of the cord, the sensory as well as the motor and trophic regions being affected. If this woman, in addition to her motor, trophic, vaso-motor, and reflex phenomena, also presented certain sensory phenomena, as anæsthesia, more or less complete, the probabilities would be in favor of diffused myelitis. I believe that in many of these cases of widely distributed anterior poliomyelitis the myelitis is more or less diffused in the beginning, but the brunt of the inflammation is borne by the anterior horns while the rest of the cord rapidly clears up.

Landry's paralysis, or acute ascending paralysis, is similar in some of its features to subacute generalized anterior poliomyelitis, and by some the two are regarded as identical. Westphal, quoted by Seguin in his monograph on *Poliomyelitis*, gives the following points of difference: In Landry's paralysis, asphyxia is frequent, the muscles do not lose their faradic contractility. It usually develops suddenly, the patient first noticing muscular weakness, which rapidly deepens into complete paralysis. The paralysis most commonly begins first in the legs, and within a few hours or days becomes absolute. Weakness in the arms is then noticed, and this deepens into paralysis. Then swallowing and respiration become affected, and the patient often dies, commonly in from three or four to fifteen or twenty days, the average duration being from eight to twelve days. The pathology of the disease is obscure. One point in which it is said to differ from subacute inflammation of the anterior horns is in that, although the paralysis is so complete and leads so quickly to death, there are in most cases no reactions of degeneration. In Landry's paralysis, again, as a rule, there is no sensory disturbance, and the bladder and bowels are not involved, nor are the muscles much atrophied. It has a typical, peculiar, rapidly ascending course, which leads often but not always to death. Some time ago I saw a

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young lady die of this affection, much to the surprise of her physician, who had supposed that she was suffering from hysterical paralysis.

Hæmatomyelitis sometimes simulates subacute anterior poliomyelitis. A striking peculiarity of hæmatomyelitis is the sudden paralysis, which may develop even more rapidly than in true Landry's paralysis, even in a few minutes. It usually first appears in the legs, then the arms are affected, with pain in the back, and other sensory symptoms. The differences between it and Landry's paralysis are in the very sudden onset, and prominent symptoms of irritation. The following are the notes of a case of this kind, with post-mortem, observed in this hospital:

Case 4.—J. R., colored, aged 60, was brought to the hospital with the statement that he had suddenly a stroke of paralysis eight days previous, since which time he had been getting worse. When admitted he was sinking rapidly, the breathing was short and labored, heart's action feeble and irregular, pulse 104, feeble, and occasionally intermitting. He could not protrude the tongue beyond the lips, and swallowed with difficulty, the act being accompanied with a choking sensation, and the ejection of frothy mucus. He spoke with great difficulty, and complained of sharp pain in the back, between the shoulders and up and down the spine. He had no headache. The bowels had not been opened, but the urine was passed involuntarily. He had a moderate amount of power in his arms. The legs were stiff and motionless. The right axillary temperature was 102°; the left 102.5° F. Every few minutes there was a spasmodic jerking of the legs and body, but no trismus. An autopsy showed minute hemorrhages throughout the gray matter of a softened cord.

Another trouble which often closely resembles the affection under discussion is *spinal congestion*. The patients come with a history that after exposure they have lost the use of their lower limbs, and sometimes of the upper. Heaviness and pain in the back are complained of, and also more or less pain from lying on the back. Numbness in the legs and other disturbance of sensation are also present. The electrical reactions are changed only to a slight extent, if at all. The paralysis may be almost altogether complete. Such patients exhibit evidences of the involvement of the whole cord, but not a complete *destructive* involvement. I am able to show you a case, which this very day leaves the hospital cured. The following is her history:

Case 5.—L. P., colored, age unknown, had been in her ordinary health until November 24, 1884. At this time, while washing, she noticed swelling of the feet which soon became painful, finally associated with loss of power. She had also a girdling sensation about the abdomen, and a pain in the back. She was admitted to the hospital one week later, at which time there was retention of feces and urine. She had some soreness and tenderness in the epigastrium. She complained of dyspnœa which was apparently independent of any pulmonary trouble. It was necessary to use the catheter for one week, by which time control of the bladder had been regained. The bowels were regulated by purgatives. She was given large doses of ergot and bromide and iodide of potassium, and slowly improved, and after a time was able to get out of bed and walk with the aid of a chair. An examination at this time showed that the girdling pain had disappeared. There was distinct loss of sensation. Testing the farado-contractility, it was found that in the right leg, the flexors only responded to the slowly interrupted current, while in the left both flexors and extensors responded to the interrupted current. In both limbs with the galvanic current, the flexors responded to twenty cells, while the extensors responded to fifty cells. She gradually improved, chiefly under electricity, and is now able to leave, having been in the hospital three months.

Let us now turn to the question of the diagnosis of subacute myelitis of the anterior horns from hysterical paraplegia.

"A young woman," says Bennett,[1] "suddenly or gradually becomes paralyzed in the lower extremities. This may, in a few days, weeks, or months, in different cases, become complete, or may remain partial. There is no loss of sensation, no muscular rigidity, no cerebral disturbances, nor any affection of the bladder or rectum. The patient's general health may be robust, or it may be delicate. She may be of emotional and hysterical temperament, or, on the contrary, of a calm and well-balanced disposition. At first, there is no muscular wasting, but, as the disease becomes chronic, the limbs may or may not diminish in size. The entire extremity may be affected or only certain groups of muscles. Finally the disease may partially or entirely recover, or may remain almost unchanged for years."

Two facts are often overlooked in this connection, first, that poliomyelitis is just as liable to occur in the hysterical as in any other class; and, secondly, that the symptoms of hysterical paraplegia and poliomyelitis may go hand in hand.

Following the proper clinical method, let me next show you this case of hysterical paraplegia.

Case 6.—This patient has been in this hospital for a number of years. I saw her for the first time, eight years ago, at which time she was more helpless than she is at present. For a time she was in another hospital; this was two years before I saw her. While there she regained the use of her limbs, and left the hospital walking. This power had been lost when she came to this hospital, but in the course of a few months she regained the use of the limbs, and was able to walk again. This did not continue and she again relapsed. In other words, we have a history of complete or almost complete paralysis of the lower limbs with several recoveries and several recurrences of the helpless condition. As you can see, she has a certain amount of power in the muscles of the lower extremity, but this is not marked, and she states that she has no feeling in the legs. The patellar reflex is well preserved, or if anything exaggerated. There is even a little clonus. The arms are not affected, and she has no trouble with the bladder or bowels, nor has there been any affection of the voice. In spite of the long disuse of the legs, they are still well preserved. Testing next as to farado-contractility, we find it well preserved, and finding this, it is, as a rule, not necessary to employ the galvanic current, as galvano-contractility is usually present under these circumstances.

We have in these two young women the points of differential diagnosis between subacute or chronic mye-

[1] Lancet, vol. ii. p. 842, November, 1882.

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litis of the anterior horns and hysterical paraplegia. In diagnosticating hysterical paraplegia from diffused myelitis, we would be governed practically by the same points. The history is somewhat different. In the hysterical case, there is a history of at least two occasions on which she recovered the use of the limbs for a long period. In the other case, paralysis has been present from a definite time until the present. This history of frequent attacks of paralysis, in connection with other hysterical symptoms, is very suggestive although not always positive.

The patellar reflex is retained, often exaggerated, and rarely lost in hysteria, while it is usually lost in poliomyelitis. Electro-muscular contractility is often normal in hysterical paralysis; although sometimes it is slightly diminished quantitatively to both faradism and galvanism. The various muscles of one limb respond about equally to electricity. There are no reactions of degeneration in hysterical paralysis as in poliomyelitis; the cutaneous plantar reflex is impaired; bed-sores are usually absent, as are always acute trophic eschars, and the nail-markings present both in generalized subacute myelitis and diffused myelitis. True muscular atrophy is also wanting in hysterical paraplegia, although the limbs may be lean or wasted from the original thinness of the patient or from disuse. The temperature of the limbs is usually good. There is no blueness nor redness of the limbs, nor are the bowels and bladder uncomfortably affected. In the case of poliomyelitis the disease came on with diarrhœa and fever; often also it comes with vomiting and with pain. The paralysis first affected the leg, and then progressing affected the arms.

This case of hysterical paraplegia might possibly be considered as one of spasmodic tabes or spastic spinal paralysis, of remarkably slow progress. It is often difficult to distinguish between the two. Hughes Bennett, and Muller, of Gratz, call attention to the fact that young women may exhibit all the signs of primary spastic paralysis, simulating sclerosis, and yet recover.[1] If I did not know the long-continued history, I might think it was possible that this was a case of lateral sclerosis, and it may be that real degenerative disease of the cord has gradually occurred in this patient, but I know that she has been on her feet on two occasions after having been completely paralyzed. If, however, a recent case of this kind came to you, you can see how difficult it might be to distinguish the two affections, and you would have to fall back on a few things to make the diagnosis.

Spondylitis, or caries of the vertebræ, is sometimes difficult to distinguish from hysterical paraplegia, or hysterical paraplegia from it, or you may have both in the same case. Likewise, painful paraplegia from cancer or sarcoma of the vertebræ may present some difficulties.

Case 7.—We have here a case of which the following is a short account: L. K., aged 44, when two years old met with a fall which was followed by disease of the spine, and has resulted in the characteristic deformity of Pott's disease. She was apparently well able to do ordinary work until five years ago, when her legs began to feel numb and heavy, and with this were some pain and some slight loss of power. These symptoms increased, and in three months were followed by a total loss of power in the lower extremities. She was admitted to this hospital some four years ago. From the time of entrance until about one year ago, she was unable to move the legs. She went around the wards in a wheeled chair. The diagnosis was made of spondylitis, curvature, and paralysis and sensory disorders depending on compression myelitis, and it was supposed for some time that she was beyond the influence of remedies. One day one of the resident physicians gave her a simple digestant or carminative, soon after which she got up and walked, and has been walking ever since. She attributes her cure entirely to this medicine.

What is the lesson to be learned from this case? It is, in the first place, not to consider a patient doomed until you have made a careful examination. There can be much incurvation of the spine without sufficient compression to cause complete paralysis. In this patient we have an organic associated with a hysterical condition. This woman had disease of the vertebræ, the active symptoms of which had subsided. The vertebral column had assumed a certain shape, and the cord had adjusted itself to this new position, yet for a long time she was considered incurable from the fact that the conjunction of a real and a hysterical or mimetic disorder was overlooked.

Case 8.—Two years ago I was consulted by letter about an unmarried woman, aged 27, the youngest of eight or nine healthy children, whose parents were living at an advanced age. The patient had whooping-cough, which lasted six weeks, and was followed by severe pain in the back. For this she consulted various physicians, being treated for Pott's disease and spinal irritation. She, however, continued to grow worse, and every jar and twist gave severe pain. At this time she had lost much flesh, had pain in the back and elsewhere, and was subject to numerous and violent "spasms." She was now treated by a local practitioner, and improved to a certain extent. When first seen by the physician who consulted me, she was complaining of pains in her legs, hips, and left shoulder, which she considered rheumatic, and with pain in the abdomen.

Examination of the back with the patient on her side showed a slight prominence over the position of the first or second lumbar vertebra. This spot was painful on pressure, and had been so ever since the attack of whooping-cough three years before. She stated that every movement of the spinal column caused pain. At times the pain has been so severe that she could scarcely tolerate anyone walking across the floor of the room. A tap on the sole of either foot made her complain of severe pain in the back. The same result followed pressure on the head. The patient was unable to stand or walk, but occasionally sat up for a short time, although suffering all the time. *There was no muscular rigidity.*

The limbs and body were quite thin, but so far as could be detected she had no loss of motor or sensory power. At times when the rheumatic pains were worse the arms would be flexed involuntarily, and she stated that once the spine was drawn back and a little sideways. The pain in the hips was augmented by pressure. The appetite was rather poor. The doctor, supposing that she was suffering with spondylitis, advised the application of a plaster bandage, to which, after much entreaty

[1] Quoted by Althaus. On Sclerosis of the Spinal Cord, by Julius Althaus, M.D., M.R.C.P., etc. G. P. Putnam's Sons, New York, 1885, p. 330.

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on the part of the parents and friends, the patient consented. During the application, however, she had a sort of fit and fainted, and the application was suspended. She soon recovered consciousness, but refused to allow the completion of the dressing. I gave the diagnosis that the affection was largely hysterical, and a few months later received word that the patient was on her feet and well.

The association of hysteria with real and very severe spinal traumatism partially misled me in the following case:

Case 9.—A middle-aged man had been injured in a runaway accident. He sustained a fracture of one of the upper dorsal vertebræ, probably of the spines or posterior arch. This was followed by paralysis, atrophy of the muscles, contractures, changed reactions, bladder symptoms, and bedsores. There was also anæsthesia, and the upper extremities were affected. Marked mental changes were present, the man being almost insanely hysterical.

The diagnosis was fracture followed by compression myelitis, with descending motor and ascending sensory degeneration. An unfavorable prognosis was given. He left the hospital and went to another, and finally went home. There, I have been told, he was treated with a faradic battery by a woman. He gradually improved and is now on his feet, although not well. In this case there was organic disease, and also much hysteria.

Mistakes in diagnosis where hysteria is in question are frequently due to the association with it of serious organic disease of the nervous system. This is a fact which has not been overlooked by authors and teachers, but one on which sufficient stress has not yet been laid, and one which is not always kept in mind by the practitioner.

Bramwell[1] says: "Cases are every now and again met with in which serious organic disease (myelitis, and poliomyelitis, anterior, acute, for example) is said to be hysterical. Mistakes of this description are often due to the fact that serious organic disease is frequently associated with the general symptoms and signs of hysteria; it is, in fact, essential to remember that all cases of paraplegia occurring in hysterical patients are not necessarily functional—*i. e.*, hysterical; the presence of hysteria, or a history of hysterical fits, is only corroborative evidence, and the (positive) diagnosis of hysterical paraplegia should never be given unless the observer has, after the most careful examination, failed to detect the signs and symptoms of organic disease."

ORIGINAL ARTICLES.

THE EXTERNAL THERAPEUTICS OF PULMONARY CONSUMPTION.

BY THOMAS J. MAYS, M.D.,
OF PHILADELPHIA.

THIRD PAPER.[2]

EXTERNAL applications in the treatment of acute inflammatory diseases of the respiratory organs are so common that it almost seems paradoxical to find them so rarely employed in the more chronic affections of these structures. Their absence is especially and notably conspicuous in the prevailing treatment of pulmonary consumption. Why this is so, is hardly comprehensible, unless it is due to the fact that the dominant sentiment of the profession indorses the doctrines of Laennec, of Charcot, and of other prominent men of the present day (notwithstanding the teachings of Virchow, Niemeyer, and Hamilton to the contrary), that consolidation, crepitation, bronchial respiration, etc., in the apex necessarily means an infiltration of that part of the lung with tubercle. This being the presumed condition, and the rebelliousness and obstinacy of tubercle to treatment taken into consideration, it naturally follows that the course of therapeutics assumes a *laissez faire* character, and the patient is generally advised to emigrate to some more congenial climate, and there his vital resources, unaided by artificial means, are left to struggle against a most desperate enemy, and in the majority of instances he is bound to go down in the unequal encounter.

In this paper I hope to adduce evidence to show that pulmonary consumption, in by far the largest number of cases, is of an inflammatory character; that tubercle is always a secondary product of inflammation; that in most cases a long period elapses between the advent of inflammation in the lungs, and the appearance of tubercle; and that this pretubercular stage can be successfully treated by the proper therapeutic measures.

In order to accomplish this properly we must trace the origin and evolution of the pathological history of a case of pulmonary consumption, and this of course necessitates a brief review of the anatomy and physiology of the lungs, especially that of their vesicular structure. The lungs are essentially composed of bronchial tubes, alveoli, bloodvessels, nerves, and lymphatics. The bronchi are lined with ciliated columnar epithelium, underneath which come in their order the basement membrane, inner fibrous coat, muscular layer, and the outer fibrous coat. The vesicles are merely terminal expansions of the bronchioles, the walls of which are composed principally (1) of elastic and white fibrous tissue, (2) an abundant plexus of capillary bloodvessels, (3) a system of plasmatic spaces, which communicate with the lymphatic vessels of the interlobular septa of the arteries, of the bronchi, and of the deep layer of the pleura, (4) a lining of the alveolar surface consisting of a single layer of flat epithelial cells, and which are by some histologists believed to be endothelial in character, and (5) small valve-like orifices or stomata located between these epithelial cells, and which are in close communication with the plasmatic or lymphatic spaces beneath. These stomata in connection with the lymphatic vessels play such an important rôle in the history of consumption, that their consideration cannot be overlooked. For even in the healthy state it is through them that carbon particles are absorbed from the alveoli and are disseminated throughout the lung by means of the lymphatics.

Now, pulmonary consumption generally begins in

[1] Diseases of the Spinal Cord, by Byrom Bramwell, M.D., F.R.C.P. (Edin.), 1884, p. 301.

[2] My first paper on this subject appeared in the Philadelphia MEDICAL NEWS, March 8, 1884, and the second one in *The Therapeutic Gazette* for June, 1885.

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the epithelial covering of the alveoli. On account of some irritation they undergo a too rapid proliferation and give rise to an abundant catarrhal excretion, which generally accumulates and fills up the alveoli. The plugging of the alveoli in this manner gives rise to a studded appearance of the part, with nodules of a yellow-grayish color, and which are erroneously called tubercles. They are not tubercles in the technical sense of that term, but merely aggregates of inflammatory products. So far there is nothing histologically involved in the disease process except the epithelial lining and the walls of the alveoli, but the next step originates a different set of phenomena. For the continued proliferation and accumulation of epithelial products in the air-cells must exert a pressure on the capillaries in the walls of the alveoli and in the interlobular septa, and thus seriously interfere with the blood supply and nutrition of the latter. These infiltrated spots are therefore cut off from their source of nourishment, and begin to undergo a retrograde change of caseation—the centre of the spot being furthest from the nutritive supply begins to soften first, and in due time the whole mass breaks down and is expectorated. This is the stage of excavation, and it is here in the pneumonic process that the true tubercle is born.

Either in virtue of a specific poison, or of an accumulation of decaying products, a new element originates here which is absorbed by the lymphatics surrounding the bloodvessels and bronchi, and which incites new nodulated growths in these structures. These are genuine tubercles and differ from those aggregates called yellow tubercles, both in genesis and in structure. They are evolved from interstitial connective or lymphatic tissue, and are growths or a hyperplasia, and not mere accretions like the so-called yellow tubercles. These nodular structures primarily develop in the above named tissue in the alveolar wall and force the surface out into the cavity. By and by the continuity of the wall breaks and the newly formed interstitial connective-tissue cells exude into the alveolar cavity. A number of nodules following such a course will very soon crowd and overdistend the air vesicles, and very naturally these infiltrated areas will be cut off from their blood supply in the same way as those of the catarrhal infiltration are isolated. This is the stage in which the tubercular growth is so liable to be mistaken for the catarrhal infiltration, and *vice versa*. Here the two forms occupy the alveolar cavity, but when minutely examined it is found that one is composed of interstitial connective-tissue growth, and the other chiefly of catarrhal products. From this period the course of the tubercular mass is indistinguishable from that of the catarrhal mass, it softens and is expectorated.

It will thus be seen how important it is to recognize the difference between that stage of pulmonary consumption when it is purely inflammatory, and when it is complicated by the new element of tubercle. Any one who has had even a limited experience with the disease knows full well that in most cases the pretubercular stage is slow in its progress, and that a comparatively long time elapses between the advent of the disease and a break in the continuity of the lung structure. During this stage the patient may be subject to many of the aggravated signs and trying symptoms of the disease; such as dulness, crepitation, subcrepitation, bronchial respiration, constant cough and profuse yellow expectoration, hæmoptysis and blood-streaked sputum, chills and night sweats, loss in weight, want of appetite, etc. Yet it is the most advantageous period for the treatment of the disease—a period in which the patient can be fully restored, but which is often frittered away by doing nothing because of a mistaken notion of the pathology of the disease. After cavitation occurs and tubercle supervenes, the disease undoubtedly assumes a graver aspect, but even then the patient is by no means beyond the reach of medical aid, as some of the cases reported in the first series illustrate.

In order to present the line of difference between the catarrhal and the tubercular element of pulmonary consumption as visibly as possible, I will give a brief comparative outline of their chief characteristics in the following table:

Catarrhal Phthisis.	*Tubercular Phthisis.*
Commences on the surface of the alveolar cavity and in the epithelial layer.	Commences within the alveolar wall and in the interstitial connective or lymphatic tissue.
Is inflammatory in character, and its products consist chiefly of catarrhal epithelial cells.	Is hyperplastic in character, and its products are an increase of interstitial connective tissue elements. First evidence is a small projection on alveolar wall.
Isolated, or groups of alveoli are filled with catarrhal or epithelial products. These accretions are falsely called yellow tubercles.	Isolated, or groups of alveoli are filled up with connective tissue cells which break through the wall. These are true gray tubercles.
Continued accumulation causes isolation of these masses from their blood-supply, and consequently they undergo caseation which is liable to be followed by excavation. It is at this period that catarrhal phthisis generates tubercular phthisis.	Same.

After these introductory remarks on the general pathology of pulmonary consumption it is pertinent to inquire what indications in the line of treatment these considerations point out; or, in other words, what important clew does pathology offer in regard to the treatment of this disease? This is a very essential question, and one that has a most vital bearing on the whole province of rational therapeutics. The earliest stage of the disease which usually comes under the practitioner's care is that of slight consolidation of one apex, associated with a prolonged expiratory sound, and bronchial respiration with or without crepitation. This of course indicates a complete or partial infiltration of the alveoli with catarrhal products in that region. It is plain that the indication here is to get rid of these products, and the best method wherewith to accomplish this confronts us here. It is not enough that we only aim to circumvent the local process of inflammation, for it is evident that our attention must also be directed towards the products left behind by the latter process.

Now when we reflect that all portions of the lung are liable to catarrhal infiltration, and that absorption or resolution occurs more readily anywhere else than

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in the apex, the inference at once strikes us that some close relationship must exist between infiltration and the apex. I do not think that there is any specific affinity between the two; but these products merely remain because there is less circulatory, lymphatic, and respiratory activity in the apex than in any other part of the lung, and hence, less facility for carrying them off. This assumption is further confirmed when coupled with the fact that in mitral disease where there is a constant hyperæmia or fulness of blood in the pulmonary circulation in consequence, catarrhal infiltration, or tuberculization for that matter, is almost entirely unknown. The continual hyperæmia does not allow an opportunity for the accumulation of these products, since they are constantly washed away by the serous transudation present in these cases. It is evident, therefore, that any agent which transfuses a greater degree of activity into the circulatory, lymphatic, and respiratory functions of the lungs will clear up the infiltrated alveoli and bring about a restoration of the apex. Now, in my experience, the external application of moist heat over the apex is certainly one of the agents which possesses the power of promoting resolution and resorption, as I have already shown in my two previous communications on this subject. By stimulating the affected spot and its surroundings with heat, the blood and lymph flow undoubtedly become accelerated, and an increased interchange and absorption of the fluids and solids of the part follow. It is a common remark of the consumptive patient, after being poulticed for a few days or a week, that he feels more free in his lung, and is able to take a deeper breath without pain than formerly.

To make a good poultice, boil the ground flaxseed meal in a sufficient quantity of water to make a thick paste. Spread it quickly in a layer an inch thick between two pieces of flannel cut in the shape of a jacket, which is well fitted to the top, front, and back of apex, as well as to the anterior and posterior aspect of the affected lung. The edges are sewed or tied together, then it is adjusted to the chest, and the outside well covered with oiled silk, or some thick woollen material in order to prevent a too rapid radiation of heat. It must be changed every two or three hours, or sooner if it becomes cooler than the body. This process is to be continued from morning until night, when the poultice is taken off, and the chest is well wrapped with woollen flannel for the night, in order to avoid a sudden disturbance of the bodily temperature during the sleeping hours. The next morning the same programme is begun and continued in the same way for at least three weeks, and so much longer as is necessary. It is much more expedient to poultice during the day only, and allow the patient to rest and be free from the poultice during the night. In fact this is very important, for if you insist to poultice during the night also, you are very apt to worry and discourage the patient, and get him to refuse the application altogether. In a course of five or eight days poulticing, or perhaps sooner, the patient begins to experience relief. The cough becomes easier, and the expectoration more loose. The appetite begins to improve, and the patient coughs less at night and sleeps better. The changes in the physical signs are also at times most marked. Where before the poulticing there was heard nothing but bronchial respiration, subcrepitation and perhaps crepitation, and coarse mucous râles show themselves, leading one to suspect that the disease is advancing instead of receding. In course of time, however, say three weeks, or sooner probably, as will be seen from Case III., the whole part will clear up and become dry.

I will now present the history of a third series of cases of pulmonary consumption, which has been treated by this method, and I think the practical results speak as emphatically in its favor as those of the first and second series of cases.

CASE I. *May 19, 1885.*—W., aged 26, has been sick with severe cough, dyspnœa, pain in the left chest, chills, fever, and night sweats for about two weeks. For the last year and a half the patient has been suffering from chronic bronchitis, and a "fresh cold" brought on the present attack—the disease undoubtedly extending from the bronchi into the alveoli.

Physical examination shows absolute dulness from third intercostal space in front to base of left lung, and from apex of scapula to base behind on same side. Increase of vocal fremitus, bronchial respiration, crepitation and mucous râles distributed over same region. Evening temperature 103.5° Fahr. and pulse 120.

Treatment.—Flaxseed poultice externally, and tincture of iron and quinine internally, together with a nutritious diet.

26th.—Feels very much better. His appetite, which was almost *nil*, greatly improved. Also cough less and easier. Less dulness, absence of crepitation, but mucous râles in abundance. Same treatment.

June 3.—Patient still improving, able to sit up and appetite very good. Temperature normal. Left lung very nearly cleared up as far as râles are concerned. Some dulness still persists. Same treatment.

12th.—Still improving. Râles entirely gone. Some impairment of percussion resonance still remains. Discontinue the poultice.

25th.—Patient very well. Able to walk out for a week past. July 14th, well.

CASE II.—N., aged 35, married, laborer, was seen first April 9, 1885. He complained of cough and pain in right chest for the last year. Has been unable to work lately. Is losing flesh, has yellow expectoration, night sweats, and no appetite.

Physical examination showed dulness in right apex, vocal resonance and fremitus increased over same region. Bronchial respiration over posterior aspect of same apex, and crepitation over anterior aspect. Left lung normal. He was treated variously until May 6th following, when another examination showed no improvement in his physical signs, and his symptoms were decidedly worse. On this day he was ordered to be poulticed over the whole of right lung. On the following 13th of May, his wife reported that he had improved in every respect since he began to poultice—coughs and expectorates less, and is now able to lie on his right side without causing any inconvenience. On the 18th of May, a physical ex-

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amination showed that the crepitation in apex had almost entirely disappeared. There was also an improvement in the bronchial respiration, and possibly also in the dulness. His cough and expectoration markedly diminished and his appetite very good. He thinks he will be able to go to work very soon. Same treatment.

June 2.—Feels good; crepitation gone and bronchial respiration hardly perceptible; some dulness persists; poultice discontinued.

20th.—Bronchial respiration replaced by a roughened vesicular respiration; very little dulness.

CASE III.—D., aged 35, widow, cook, was first seen May 18, 1885. Had a cough which began two months previously; yellow expectoration; hæmoptysis last March; night sweats; losing flesh; poor appetite; cough very bad at night; bowels and menses regular. She is the only remaining member of a family of eleven children, all the rest having died from consumption or other chest troubles.

Physical Signs.—Dulness in left apex extending to second intercostal space in front, and to spine of scapula behind. Vocal fremitus and resonance increased over same area; crepitation in supraclavicular region; vesiculo-bronchial respiration from clavicle to second rib; defective respiration in posterior apex of same side; puerile respiration in upper portion of right lung.

Treatment.—Flaxseed poultice over left lung, and simple bitters with syrup of squills and senegæ internally.

June 4.—Feels very much better since she began the poultice; cough and expectoration much less and appetite very much improved.

9th.—Gets along well; coughs none at night and expectorates less; night sweats diminished and appetite good. *Physical signs.*—Crepitation in left apex entirely gone, and the dulness as well as vocal resonance and fremitus diminished; discontinued the poultice, otherwise same treatment.

18th.—Continues to improve; physical signs hardly show a trace of disease in left apex; she feels very well, and is able to follow her vocation again.

CASE IV. *June 2, 1885.*—B., aged 24, married; had a steady cough for some time, which is worse at night; yellow expectoration; night sweats; chills and fever; is losing flesh; has no appetite; bowels and menses regular, and heart normal. Physical examination shows dulness in left apex, extending to second intercostal space in front and to spine of scapula behind; prolonged expiration behind, and wavy respiration in front over same area; vocal fremitus and resonance increased here, too; right lung normal.

Treatment.—Internally, tincture of iron and quinia; and externally, flaxseed poultices.

16th.—Coughs less; expectorates the same; night-sweats less, and appetite better; less dulness in apex; vocal resonance and fremitus also less disturbed; wavy respiration disappeared in front. Same treatment continued.

23d.—Cough and expectoration less; appetite good; only occasional chills and night sweats; dulness hardly perceptible in front; poultice discontinued. Same internal treatment.

CASE V.—A., aged 51, stonecutter; was seen first on May 6, 1885, when he complained of constant pain in right side from shoulder to base of thorax, which lodged there a month previously. Pain is of a stitchy character—worse on taking breath; coughs since the attack; has a yellow expectoration, which, at times, is blood-streaked; is losing flesh; appetite poor; no night sweats, but feels very chilly.

Physical Signs.—Dulness on right apex, extending to second intercostal space in front, and to spine of scapula behind; vocal resonance and fremitus increased over this region; also crepitation, which is most marked in supraclavicular region.

Treatment.—Quinia, tincture of iron, and flaxsed poultices to right chest.

June 2d.—Pain and stitch better; coughs less, and has very little expectoration; no blood-streaked sputum since poultices went on; appetite better; but still feels chilly at times.

Physical Signs.—The differences in the vocal resonance and fremitus between the two sides probably less marked; crepitation is gone behind, and replaced by a prolonged expiration and roughened inspiration. Same treatment continued.

9th.—Says he feels much improved since he began the poultices; pain entirely gone out of chest, even on the deepest inspiration; no cough, nor much expectoration; appetite good; no chills any longer.

Physical Signs.—Crepitation vanished, and there is very little difference in the physical signs between the two sides of the chest; stopped the poultice, but continued the quinia and iron.

July 16.—Well, and is going to work.

CASE VI.—M., aged 30; was first seen on June 18, 1885; complained of pain in the right side of her chest; constant cough, day and night; dark greenish expectoration; had hæmoptysis a year ago; night sweats; chills; poor appetite; constipated bowels, and losing flesh.

Physical Signs.—Right side—defective respiratory motion; dulness extending from apex to second intercostal space in front, and to spine of scapula behind; vocal resonance and fremitus increased over this spot, as well as a prolonged expiratory sound, which is especially audible behind over the affected area; left lung and heart normal.

Treatment.—Tincture of iron and quinia, and flaxseed meal poultices externally.

2d.—Feels better; pain nearly gone in chest; coughs very little, only three or four times a day, and not at all during the night, so she states; very little expectoration, but still greenish in color; no more night sweats; occasional chills; appetite good, and bowels more regular; dulness less marked, and vocal resonance and fremitus certainly diminished; prolonged expiration gone behind; stopped the poultices; continued the other treatment.

The deductions which may be drawn in regard to the practical results of the external method of treating pulmonary consumption are, I think, obvious enough, and require no further comment at present. I will reserve for a further paper a review of all the cases so treated which I reported in the three articles on the subject, and there hope to show that the evidence from these examples undoubtedly and decidedly

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points out the direction in which the successful treatment of this disease lies, viz., in efforts to combat and exterminate the disease by external applications, and to conserve and enhance the resisting power of the body by nutritious food and internal medication.

151 NORTH FIFTEENTH STREET, PHILADELPHIA.

DISINFECTANTS.

PRELIMINARY REPORTS OF THE COMMITTEE ON DISINFECTANTS OF THE AMERICAN PUBLIC HEALTH ASSOCIATION.

XIV.

THE METALLIC SULPHATES.

BY GEORGE M. STERNBERG, M.D.,
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THE metallic sulphates have been largely recommended as "disinfectants," and directions for their use are to be found in the printed circulars of health authorities in this country and in Europe. In France the sulphate of copper is a favorite disinfectant, and, as I shall shortly show, is a reliable agent for the destruction of germs in the absence of spores. It is very much superior to ferric sulphate, or zinc sulphate, which have been more extensively used in our own country.

The value of all these agents as antiseptics is beyond question, and when the object in view is to prevent the development of germs in privy-vaults, cesspools, etc., a solution of "copperas," on account of its cheapness and efficiency, is especially to be recommended. But the directions often given for the use of dilute solutions of ferric sulphate, or zinc sulphate, for the disinfection of the sputa of patients with diphtheria, the excreta of patients with cholera, typhoid fever, etc., are founded upon a mistaken estimate of the germicide power of these salts.

The metallic sulphates have all a certain value for the prevention of putrefactive fermentation, and for neutralization of the volatile products of putrefaction. They are therefore "disinfectants" in the popular acceptation of the term. Thus Vallin says:

"*Metallic sulphates in general.*—These agents are disinfectants in the vulgar sense of the word; they diminish, or cause to disappear, bad odors; their action being limited to the neutralization of ammonia and the decomposition of sulphuretted hydrogen, or of the sulphhydrate of ammonia.

"In this group are the soluble salts of iron, of zinc, of copper, of manganese, and of lead. The oxides of these metals, which are quite cheap, have also been recommended for this purpose; but the salts have the advantage over the oxides of being able to saturate ammonia already formed, or that which results from the decomposition of the sulphhydrate of ammonia; the oxide of iron, for example, can only fix sulphuretted hydrogen by forming the sulphuret of iron; the sulphate of iron produces in addition the sulphate of ammonia.

These salts, then, cannot neutralize all bad odors, and therefore they do not entirely merit the title of deodorants. Bad odors, indeed, owe their infection to a great quantity of diverse substances which have not been completely determined by chemistry, and of which scatol is one of the most recently discovered. It is, then, almost entirely the two badly smelling compounds which have been longest known, which are neutralized by these metallic salts."[1]

"Virchow has pointed out one of the objections to the use of the sulphate of iron for disinfecting feces. The volatile fat acids, butyric, valerianic, etc., which have a disgusting odor and are highly toxic, are ordinarily combined with ammonia. When we throw sulphate of iron upon fecal matter, the sulphuric acid combines with the ammonia and fetid products are given off, which are very volatile.

"The immediate effect, therefore, of throwing sulphate of iron into latrines, is frequently to augment the bad odor, which, however, soon diminishes, but ordinarily reappears after some time." (Op. cit., p. 63.)

In what follows we shall endeavor to fix the value of the metallic sulphates as *disinfectants* in accordance with the definition of the term heretofore given by the Committee on Disinfectants, *i. e.*, the germicide value as fixed by biological tests.

Ferric Sulphate.

In the writer's experiments published in the *American Journal of the Medical Sciences* (April, 1883), it was found that a saturated solution of ferric sulphate failed to destroy the growing power of any of the test organisms, the time of exposure being two hours. A recent experiment upon a micrococcus obtained from the pus of an acute abscess gave a similar result. The organism grew freely in culture solutions, after exposure for two hours to a ten per cent. solution.

According to Arloing, Cornevin, and Thomas, exposure to a twenty per cent. solution for forty-eight hours does not destroy the virus of symptomatic anthrax. The vitality of anthrax spores is not destroyed by exposure for six days in a five per cent. solution (Koch).[2]

Zinc Sulphate.

In the writer's experiments, reported in the *American Journal of the Medical Sciences* (l. c.), a solution of twenty per cent. of this salt failed to destroy the micrococcus of pus. In experiments recently made, the same micrococcus grew after exposure to a ten per cent. solution for the same time (two hours), but development was somewhat retarded. Another micrococcus (*M. tetragenus*) was destroyed by a ten per cent. solution in the same time. Broken-down beef-tea, mixed in equal quantities with a forty per cent. solution, was not sterilized at the end of two hours, as shown by culture experiments made in the usual way.

Koch found (l. c.) that a five per cent. solution had not destroyed the growing power of anthrax spores at the end of ten days, although their development was somewhat retarded.

Cupric Sulphate.

I have recently made experiments with this salt upon pure cultures of *B. anthracis* and of *B. subtilis*, and find that in a twenty per cent. solution (equal parts of a forty per cent. solution and of the culture)

[1] Traité des Désinfectants, p. 57.

[2] See table on p. 264 of the first volume of the Mittheilungen aus dem Kaiserlichen Gesundheitsamte.

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it fails to destroy the vitality of the spores of these bacilli in two hours' time.

Arloing, Cornevin, and Thomas found that the dried virus of symptomatic anthrax is destroyed in forty-eight hours by a solution of this strength (twenty per cent.). Koch found (l. c.) that a five per cent. solution did not destroy the vitality of anthrax spores at the end of ten days, although the rapidity of development was somewhat retarded.

The germicide power of this salt, is, however, decidedly superior to that of the corresponding salt of iron or of zinc. I have demonstrated by recent experiments that it destroys micrococci in the proportion of 0.5 per cent. (= 1 : 200). The experiments were made upon a micrococcus derived from the pus of an acute abscess, and upon the micrococcus of swine plague. In one-half the amount named (1 : 400) it failed to destroy the vitality of these micrococci.

This agent, then, is a valuable germicide, and may be safely recommended for the disinfection of material not containing spores. But none of the metallic sulphates can be relied upon for the destruction of spore-bearing pathogenic organisms, and the germicidal power of ferric and zinc sulphate is too feeble to make these salts available for disinfecting purposes, even in the absence of spores.

ON THE RELATION BETWEEN THE EARLIEST STAGES OF GRAY DEGENERATION OF THE OPTIC NERVE, AND INCREASE OR DIMINUTION OF THE PATELLAR-TENDON REFLEX (KNEE-JERK).[1]

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ALTHOUGH it has long been known that gray degeneration of the optic nerves is at times a forerunner and a herald of similar lesions in the spinal cord, yet the intervals between the recognized times of appearance of the eye symptoms and the spinal symptoms vary so greatly in each case that the frequency of such concurrence has been variously stated by different authors.

It is to the earliest stages of this gray degeneration of the optic nerve to which attention in this paper is directed, where the nerve is simply sickly, and has not yet become atrophic; where there is almost full acuity of central vision, with slight contraction of the fields for form and color, and where the irides are still prompt in their reactions to light and convergence; where, in the beginning, the disk at first sight appears of a general dirty red-gray tint, but, upon a careful focussing, it is found to be superficially capillary, while its deeper layers, especially in the neighborhood of the *lamina cribrosa*, are decidedly gray, and wanting in blood circulation, accompanied by sufficient haze of the retinal fibres to veil the scleral ring. This condition is followed later by a pallid, "filled in," and woolly appearance of the nerve, surrounded upon all sides by a broad, and oftimes sharply cut scleral ring. Such eye symptoms are associations, and not sequences of the spinal disease, and, although they do not give any absolute answer as to the cause, just as any optic neuritis *per se* fails to indicate a definite lesion, yet in this grouping we have a sign of nerve disturbance, which is a true danger signal, and should cause us to look carefully for tabes dorsalis, or other form of degeneration of the central nervous system. The writer does not wish to inculcate that this process of gray degeneration of the optic nerves may not at times be local, and limited exclusively to them, but that in a majority of cases it is a forerunner or an associate of grave changes in other parts of the organism. The ophthalmoscopic appearances, which are the most valuable, should not be confounded with those of the slight retinitis which is so often seen in uncorrected ametropia, or with the more intense form which results from intracranial and orbital trouble, whilst care should be taken to differentiate them from those visible optic nerve changes which often result from faulty nutrition or anæmia, as well as from uterine disease.

Notes of forty-seven cases in the early stage of this degeneration were presented. They showed various degrees of contraction of the fields of vision with often an increase, and more rarely a diminution, in the knee-jerk; the increased patellar-tendon reflex usually corresponding with the larger field, and diminution or abolition of the reflex usually accompanying the smaller field. It was also found that the irides were affected later in the disease, and that the more defective reaction of the iris was in direct ratio with the more degenerate optic nerve. It is very probable that the increased knee-jerk in this early stage is due to irritation of the gray matter of the cord.

Three other cases of gray degeneration of the optic nerves were also detailed, which the writer had been able to follow for several years. In two, gray degenerations of the optic nerves had been succeeded by incomplete atrophy of the optic nerve with gradual diminution of the knee-jerk, lightning pains, ataxic gait, and other well-recognized symptoms of tabes dorsalis. In the third, there were "Argyll-Robertson pupils," failure of accommodation, which, at times, varied in intensity, shooting pains, and ataxic gait.

[1] Abstract of a paper read before the American Ophthalmological Society, July 16, 1885.

SPLINT FOR THE IMMEDIATE DRESSING OF CLUB-FOOT AFTER TENOTOMY, ALSO FRACTURES ABOUT THE ANKLE-JOINT AND LOWER THIRD OF THE LEG.[1]

BY EDWARD DEVELIN, M.D.,
OF NEW YORK.

FOR some time past the desirability has occurred to me of having a simply constructed splint, which can be used for the dressing of club-foot immediately after tenotomy. It has seemed to me that one made of tin, carefully padded, which is both firm and light,

[1] Read before the New York Orthopædic Society.

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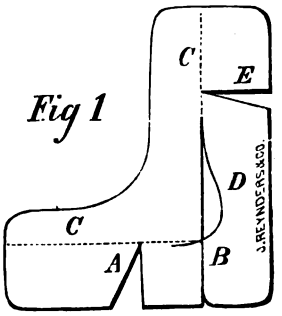
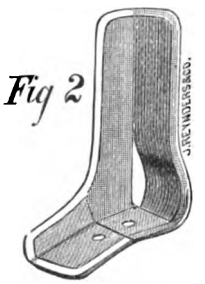
as well as simple in its construction, would fulfil the purpose.

I have, therefore, devised a splint which I here present (Fig. 2), and also show the facility with





which it can be made by any one. It is, as you see, made out of one piece of stout tin (Fig. 1), and reinforced, if necessary, with another small piece underneath, in order to stiffen it.

The advantage of this splint over those made of rubber, felt, plaster of Paris, leather, or foot-board and adhesive straps as sometimes used, is its simplicity of construction, readiness of application by one person, immobility, and the ease with which the foot can be examined at any time without removing it from the splint. It can be made in ten minutes, and in such a manner as to secure eversion or inversion of the foot at the metatarso-junction, as I here show you—the former of course being sometimes necessary after division of the plantar fascia, or short flexors, in talipes varus. In simple equinus this eversion is of course not necessary. Again, in other cases, where the tibialis posticus is somewhat shortened, but not sufficient to warrant an operation, the heel assumes a tendency to turn upward and inward, causing the external malleolus apparently to project. In those cases I make a bend in the splint as you see just above the ankle; so that when the adhesive straps, which fasten the foot in position in the splint, are properly applied, they draw the external malleolus inward, pressing the heel downward, and bring the foot into its normal position.

In order also to draw the anterior part of the foot out and secure a strong eversion after the plantar fascia has been cut, a band of adhesive plaster is passed over the dorsum of the foot to the inner side, and then underneath outward, so that while the heel is held firmly in position, I can evert the anterior part of the foot to a very marked degree, and secure it in this position by passing the adhesive strap under the splint, and then, again, over the top of the foot, in which position it cannot possibly slip.

In applying the splint, after the operation, the foot is at once brought into the normal position, viz., at a right angle with the leg, and then placed carefully in this position in the splint, which is previously well padded. Then draw a band of adhesive plaster over the heel of the splint and across the instep, padding the instep; then take the adhesive plaster at the foot, and, in order to correct any inversion, make traction outward, and secure it as I have just mentioned. I next turn my attention to the leg and upper part of the splint, securing it in like manner with adhesive straps, and the fixation is almost complete. This is extremely simple, for the foot is exposed clearly to view; hence can be seen in almost a moment what will cause, or may be causing, the patient pain, and it can be as quickly relieved without disturbing the condition of the foot, in which it has been secured.

This dressing (Fig. 3) is now supplemented with

an ordinary roller bandage, keeping the parts warm, and giving more firmness and security to the application of the splint.

This is not theoretical, but practical, as I have tested; and, further than this, where the child is so small as to render it difficult to secure a small shoe which will retain its shape, I have allowed the splint to be worn as a shoe, being secured with only a roller bandage, and removed twice daily for the feet to be manipulated and massaged.

Although this splint was designed especially for the treatment of club-foot, it can be used to great advantage in fractures about the ankle-joint or lower third of the leg, either in simple or compound fractures; its cheapness and cleanliness rendering it especially adapted to hospital use.

Fig. 1 shows the piece of tin cut ready to be shaped; C C is the extent of surface placed on the inner side of the leg and foot; A shows V-shaped piece of tin removed to allow of it being bent at the metatarso-junction; E shows V-shaped piece also removed to allow of bending of the splint when the tibialis posticus is contracted as I mentioned. The black line B is simply a direct cut through the tin to allow of it being bent so as to accommodate and form the heel of the splint D. In the majority of cases the V-shaped piece E will not be required to be cut out. If it should require it, then reinforce the back and underpart of the splint after it is formed as in Fig. 2.

Fig. 2 shows the splint complete; the curved piece forming the heel being riveted underneath with two rivets, retains the splint in the desired form, the sharp edges of the tin being simply covered with a strip of ordinary rubber adhesive plaster.

Fig. 3 shows padding and dressing of the foot complete, previous to applying the roller bandage.

This splint can be secured of any size, by giving length of foot and leg, from Messrs. Reynders & Co., 303 Fourth Avenue.

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MEDICAL PROGRESS.

IN WHAT CONDITIONS IS DIABETES COMPLICATED WITH GANGRENE?—DR. T. GIRON, in a letter recently addressed to Professor Verneuil, discusses the occurrence of gangrene as found in diabetics. He records the history of sixteen cases, concerning one of which he says: Thus, here is a diabetic in whom the gangrenous process was not developed from a local cause, neither a blow nor a blister, and which presents a series of gangrenous spots—under the influence of an affection of the heart. The influence of diabetes in the production of grangrene, in a patient suffering with heart disease so little advanced, is not doubtful; however, does not their manner and time of appearance, their progress and cure by the use of digitalis, indicate that the condition of the heart plays a most important part in the production of the gangrene, than does diabetes?—*La Progrès Médicale*, July 25, 1885.

INHALATIONS IN PULMONARY TUBERCULOSIS.—During recent times we have heard a great deal of the value of antiseptic inhalations in the treatment of phthisis. A further clinical investigation has been undertaken by DR. RENZI, of Naples. He has employed inhalations of four kinds: First, of iodoform and essence of turpentine, of which two to six drops every hour or two hours of a liquid containing one part of iodoform to twenty-five parts of spirit of turpentine were used; fourteen patients were submitted to this treatment. Secondly, iodine volatilized every day in a bed-room thirty cubic metres in capacity, in the amount of 0.40 to 2.10 grammes, heated in a capsule by means of a sand-bath; three observations were made. Thirdly, sulphuretted hydrogen, evolved by the action of sulphuric acid on powdered sulphide of iron in such proportion that every cubic metre of atmosphere in the chamber should contain seventy-five cubic centimetres; seven cases were thus treated. Lastly, sulphurous acid, made by burning sulphur in a closed chamber, so that there should be forty-three cubic centimetres of the gas in a cubic metre of the atmosphere. Dr. Renzi has found that the first two methods of treatment ameliorate the local condition and general nutrition, without modifying the pyrexia, diarrhœa, or nocturnal sweatings. Inhalations of sulphuretted hydrogen and sulphurous acid seemed to increase the general strength, improving the nutrition and increasing the quantity of urine discharged. Sulphuretted hydrogen had a special influence on the respirations, which were diminished in frequency; it also exercised a beneficial influence on the cough; but the fever, diarrhœa, and diaphoresis were not relieved. Of all the inhalations, the author decides in favor of turpentine and sulphuretted hydrogen.—*Lancet*, July 25, 1885.

TWO CASES OF LAPAROTOMY, IN ONE OF WHICH THE KIDNEY WAS REMOVED, AND IN THE OTHER A RENAL CYST.—At a meeting of the Société de Chirurgie de Paris, held July 22, 1885, M. LUCAS CHAMPIONNIÈRE reported the two following cases of laparotomy:

The first case was that of a young woman who presented a movable tumor in the right side, and which seemed to be in relation with the kidney. Laparotomy was performed, and a renal tumor discovered. In order to remove all possibility of error both kidneys were sought. The left was small and atrophied; the right was situated behind the liver. The tumor was then removed without hesitation, and was lightly attached by a slender pedicle to the convex border of the liver, and was found to be a cyst completely filled with hydatids.

The second case was also that of a woman, who suffered excruciating pains in the right side, which was the seat of a deep-seated tumor. Diagnosis was undecided between suppurative nephritis and perinephritis. The patient passed no pus with the urine; but exploratory puncture in the region of the tumor caused the escape of more than a quart of purulent fluid. M. Championnière then made an exploratory incision and thus reached the kidney. The kidney was found to be very much altered, and the wound was closed, further operation being impossible by the incision made.

A curious fact in connection with the case is, that the patient's urine after the exploratory incision contained, constantly, pus. June 13th, the kidney was removed through an incision made upon the border of the right muscles.

The kidney was first removed and afterward the ureter and fibrous envelope which surrounded the organ. The operation, though difficult, was entirely successful.—*Revue Médicale*, July 25, 1885.

SALICYLIC ACID SUET IN HYPERIDROSIS.—The Berlin correspondent of *The British Medical Journal* writes: All reports of the German army surgeons on experiments recently made with salicylic acid suet, agree in recommending its use as a remedy for extreme sweating of the feet. It is composed of 2 parts of pure salicylic acid to 100 parts of the best mutton suet. The War Minister has, therefore, permitted the introduction of this preparation into the army medical stores, for the benefit of soldiers suffering from sweating feet, or soreness from riding.—*British Med. Journal*, Aug. 1, 1885.

USE OF IODOFORM IN GONORRHŒA.—DR. A. OGER, in discussing the use of iodoform in gonorrhœa, refers to its use in solution of glycerine by M. Campana in acute and chronic conditions of the disease.

The best results are attained, however, when it is applied to the diseased parts in a very fine powder. In this form Timmermans has obtained excellent results. Iodoform being insoluble in water, he suspends, in two and one-half ounces of water, sixty grains of the drug rendered impalpable by previous solution in sulphuric ether. The mixture being well shaken, a small glass syringe is filled and injection practised. As it is important that the iodoform come in direct contact with the inflamed mucous membrane, the urethra should be thoroughly cleansed by urination immediately before the injection is made. The patient should lie on his back and the injection be made in a direction nearly vertical, gravity thus causing the powder to seek the lower part of the syringe, and thus favoring its introduction into the urethra when pressure is made upon the piston. When the syringe has been emptied, it should be gently withdrawn, and while the meatus is compressed by one hand, with the other careful pressure is made so that every part of the passage is reached

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by the fluid, and the iodoform thus deposited upon the mucous membrane.

After four or five minutes the fluid is permitted to escape gradually, in order to avoid the ejection of the iodoform. The operation should be repeated at least three times a day.

Whatever is the stage of the disease a prompt result is certain, as is shown by diminution of pain—the iodoform evidently acting as an anæsthetic to the inflamed parts.

The character of the pus is also changed, and its abundance diminished. Cure is promptly obtained; in one resulting in five days.—*Journal de Médecine de Paris*, July 19, 1885.

EXCISION OF THE HIP.—DR. WILLIAM ALEXANDER, at the close of an interesting paper upon excision of the hip, thus summarizes his views of this operation:

1. That hip disease should in the earlier stages be treated by that absolute and perfect rest of the joint that we now appreciate so well and know so much better—thanks to Mr. H. O. Thomas—how to apply, without at the same time producing general debility of the system through the restraint and confinement necessary in former times to secure sufficient rest to the joint.

2. That this treatment, thoroughly and persistently carried out for a long period, will cure a very large percentage of cases of joint disease.

3. That unfortunately this treatment *cannot* or *is not* properly or persistently carried out amongst the poor, with whom a persistent attempt to carry it out after a certain stage of the disease has been reached only leads in many cases to a useless limb after many years, and probably in a majority to death, either during the process of cure or soon after, from the exhausting effects of the local disease, and not, as some erroneously think, from an inherited constitutional debility.

4. That many of these patients could be saved by excising the joint when a decided second stage of hip disease has been reached, and that excision is most safely and advantageously performed by severing the femur above the trochanters, clearing out the acetabulum, and maintaining the opposing bones so far apart that their surfaces can resume a healthy condition, and the aperture between become filled up with fibrous tissue. By this means an excellent false joint is formed, or, if the adhesions become too firm, a good stiff joint.

5. That the advent of the stage of the disease suitable for excision is indicated by the repeated formations of abscesses and sinuses round the joint. Then excision, as described, seems to me to offer better results, both locally and generally, than rest and waiting to see what will turn up.

6. That when the supra-trochanteric mode of excision cannot be performed with any chance of success, on account of the extensive nature of the hip disease, the alternative treatment comprises either continued expectancy or amputation, according to the age and condition of the patient.

7. That it is, however, a great mistake to imagine that all softened bone or infiltrated tissue should be cleared away by the operator. All he has got to do is to clear a space where the operations of nature, in dealing with diseased or disabled tissues, can be carried out as easily and expeditiously as possible. The operator should remove all manifes ly dead tissue, but bone and tissue that the surgeon would be inclined to sacrifice as doubtful should be left alone, as these will, under the same skilful hands of nature, be restored to health, or extruded harmlessly if only a passage for their extrusion be maintained.—*The Liverpool Medico-Chirurgical Journal*, July, 1885.

THE RELATIONS BETWEEN THE SYMPTOMS AND THE CORD LESIONS OF POSTERIOR SPINAL SCLEROSIS.—DR. E. C. SPITZKA, in a paper read before the American Neurological Association, June, 1885, in discussing the relations between the symptoms and the cord lesions of posterior spinal sclerosis, says: While it must be admitted that the primary lesion of tabes is competent for each affected level of the root zones and gray horns to produce all the characteristic symptoms of tabes, referrible to that level, yet in the extent and distribution of the consecutive lesions we have valuable gauges of the extent, severity, and duration of the primary disturbance; and we may attribute to the following special disturbances the ensuing degeneration of the tracts whose functions are abolished or diminished:

1. That of the column of Goll, to the disturbance of a muscular sense in the lower extremities.

2. That of the comma-shaped internal bands of the column of Burdach, to the corresponding disturbance in the upper extremities.

3. That of the triangular area bordering on the periphery of the cord and posterior root entry, to the severe analgesic development.

4. That of the column of Clark and direct cerebellar (Foville's) tract to the disturbed space sense.—*The Alienist and Neurologist*, July, 1885.

TREATMENT OF ECZEMA IN REGIONS COVERED WITH HAIR.—Taking the scalp as a region—for which the directions laid down may be generalized in the treatment of eczema of hairy parts—it is recommended that the head at first should be thoroughly washed two or three times with soap, in order to insure the cleanliness of the affected parts. After this has been done, daily applications of the following preparation should be made:

℞.—Acid. salicylici . . . . . gr. x.
Tr. benzoini . . . . . gtt. xx.
Vaselini . . . . . ℥j.—M.

If a topical application is desired, which will more readily dry the parts, the following is recommended:

℞.—Acidi salicylici . . . . gr. xv.
Amyli
Zinci oxidi . . . . āā ℥iv.
Vaselini . . . . . ℥j.

—*Journal de Médecine de Paris*, July 26, 1885.

CASE OF PROGRESSIVE PARALYSIS OF THE ULNAR NERVE, CONSEQUENT UPON INJURY; OPERATION; SUCCESSFUL RESULT.—MR. CHAUNCY PUZEY, Surgeon to the Liverpool Northern Hospital, reports an interesting case of progressive paralysis of the ulnar nerve consequent upon injury and which was successfully treated by operation. The patient, a boy, aged 15 years, was caught between a "travelling-band" and the wheel

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over which it passed, with the result of a compound fracture of the bones of the forearm. Forcible extension was required to restore the fragments into their proper position. The case was treated antiseptically, and with the exception of a somewhat slow union of the fragments of the ulna, no trouble was experienced at this time.

But the interesting feature of the case appears later on. The lad had ceased to be an inmate of the hospital after a month's treatment, and was attending as an outpatient, on account of the non-union of the ulna, when it was noticed that there was a tendency to obstinate flexion of the fingers, more especially of the little and ring fingers. A hinged splint, by which elastic extension can be used for the purpose of straightening contracted fingers or hands, was therefore applied; and in a day or two the patient presented himself, with the ring and little fingers blistered and discolored by the pressure of the splint and bandage. This, of course, at once led to inquiries as to the state of the ulnar nerve; the rest of the hand appearing quite healthy. Then it was ascertained that the lad (who had always been most patient and uncomplaining) had experienced curious sensations, partly of pain, partly of numbness, ever since the accident; and now it was found that the affected fingers were deficient in sensibility. The natural conclusion was that the nerve had been pinched or bruised by the sharp edge of the bone at the time of the accident. There was reason to believe that the nerve had not been divided, and we hoped that the effects of the injury would pass off.

But they did not; and gradually the numbness increased, and the fingers wasted at the tips; the circulation was very sluggish, the fingers purple and cold, the skin moist and clammy. Then the interossei and the lumbricales wasted, and the adductor pollicis and the muscles of the little finger followed suit. Combined with the numbness, there was evidently a considerable amount of pain felt on any attempt being made to straighten the flexed fingers; and a dragging sensation was complained of at the seat of the fracture, just above which, pain was felt on pressure. The symptoms, therefore, pointed to gradually increasing compression, or constriction, with adhesions of the nerve at this point.

As before mentioned, the interosseous spaces, both on the dorsal and on the palmar aspects, were hollowed out; the muscles of the ball of the thumb, and those of the little finger, were much wasted. With regard to the cutaneous sensibility, there was complete anæsthesia of all the surface usually supplied by the ulnar nerve, and also incomplete anæsthesia of the adjacent sides of the middle and ring fingers (due, no doubt, to this being one of that minority of instances where the ulnar nerve supplies two and a half, instead of one and a half, fingers).

On April 28th, I proceeded to explore the site of the fracture of the ulna, which was now firmly united, but was marked by a slight thickening of the bone. An incision was made, as for exposing the ulnar artery, the centre of the incision being over this thickened portion. Neither artery nor nerve was to be seen, though carefully searched for; the bone was reached; the fracture was found satisfactorily united, the upper fragment projecting very slightly above the lower; there was some thickening from callus, and, moreover, what seemed to be a band of thickened periosteum, tightly stretched over the callus. The question arose, Was this the sought-for nerve? The wound was enlarged upwards and the nerve was then found unmistakably, and traced into this band; then the wound was extended downwards toward the wrist, and what appeared to be nerve was found, and proved to be continuous with the band; but, whereas the nerve above the adhesion was pink and fleshy looking, the part below was colorless and wasted. Partly by the knife, and partly by gentle elevation with a raspatory, the nerve was freed from the bone. We then had between two and three inches of ulnar nerve completely free, so that it could be lifted above the level of the wound, and thoroughly examined. The upper part was, as before mentioned, pink and fleshy looking, evidently swollen; the part which had been fixed down was thinned and flattened, ragged from small tags of fibrous tissue attached to it; and the lower end of the nerve was round, but pale, and apparently wasted. To prevent the lately adherent portion from dropping down into its old situation, and probably again becoming attached to the bone, I connected a few fibres of the flexor carpi ulnaris with the adjacent flexor profundus digitorum by one catgut suture, thus interposing a fleshy bed between nerve and bone. The wound was then closed and dressed in the usual Listerian method.

On May 1st (three days after), Mr. Horrocks, the senior house-surgeon, notes that "the patient was able to tell when the skin on the proximal phalanges of the little and ring fingers was pinched, and appeared to have perfect sensation along the adjacent sides of the middle and ring fingers."

On May 7th (ten days after the operation), he notes "sensibility of fingers increasing, and extending downwards toward the tips, which are, however, at present insensible, The patient made the remark that, for the last two or three days, he has had a sensation as of blood rushing along toward the finger-ends."

On May 20th, the wound was quite healed, and tactile sensibility was rapidly increasing, being more acute in the ring finger than in the little, in the proximal than in the second phalanges, almost absent in the last phalanges. The improvement since that date has been slow, but steady and persistent, until now (eight months after the operation), there is hardly any appreciable difference between the two hands. Tactile sensibility appears to be perfectly restored; the hand is now natural in shape, the interosseal spaces having become perfectly filled by their proper muscle; and the muscles of the thumb and little finger are restored to their normal state. The color of the skin and of the nails is natural. The lad has returned to his work in the mill.

It should have been mentioned that until quite recently he has had some pain in, and tendency to flexion of, the index finger, with disordered nervous sensations therein; and forcible extension of the finger has always, until recently, given rise to a dragging sensation at the site of the old fracture. Probably, a small portion of the median nerve, or rather of its anterior interosseous branch, sustained injury through the compound fracture of the radius, and some adhesions took place in that locality; and these, as he has began to use his arm, have become stretched or broken down.

I alluded to the fact of our not being able to find the

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ulnar artery in the wound. The probability is that it was so crushed by the sharp bone, that it was either divided or so damaged that it became impervious immediately after the injury.

It may occur to some that an exploratory operation should have been performed earlier. Possessed of the wisdom which comes after the event, it certainly does appear that an earlier operation would have been, at all events, justifiable; and, with the knowledge gained in this instance, I should feel disposed, should I meet with a similar case, to operate before such a condition of paralysis was reached.—*The British Medical Journal*, May 16, 1885.

LEPROSY AS OBSERVED AT CONSTANTINOPLE.—M. CONSTANTINE PAUL, at a meeting of the Académie de Médecine de Paris held July 28, 1885, in the name of the commission composed of himself and M. Cornil, read a report upon a memoir of Dr. Zambaco upon leprosy as observed at Constantinople.

The paper of Dr. Zambaco was specially devoted to the study of tubercular leprosy, and the conclusions reached were as follows:

1. Leprosy is not a hereditary disease. It is acquired possibly by contagion, but neither the clinic nor experimentation upon animals or upon man has yet been able to demonstrate this fact. The negative results of clinical investigations, and the failure of inoculation experiments, show that the disease is not easily transmitted, and that there is no proportion between the possible chances of contagion and the severity of the precautions which, in the Orient, are taken against it.

2. At Constantinople, as in Norway, lepers are affected with eye disease in the proportion of two-thirds or three-fourths.

These affections attack the cornea, iris, and crystalline body—with this difference, that the tubercular form is more frequently announced by a keratitis, while the anæsthetic form produces changes in the cornea and conjunctiva as a result of orbicular paralysis, which prevents retention of the lachrymal secretion.

3. Therapeusis consists in the combination of general treatment by tonics, such as quinine, arsenic, ergot, and of local treatment by destruction of the tubercles by means of the thermo-cautery.—*L'Union Médicale*, July 30, 1885.

THE CHOLERA BACILLUS.—FINKLER and PRIOR, in a forthcoming pamphlet, present the following *résumé* of their views:

1. We confirm the existence of Koch's comma-bacillus in the contents of the intestines and in the dejections of patients who suffered from cholera Asiatica in Genoa in 1884.

2. We have discovered the comma-bacillus in the feces of cholera nostras patients; we have thus found them directly by means of the microscope, and we were the first to breed them in pure culture fluids as well as the first to describe them.

3. These two kinds of comma-bacilli are vibrios which form genuine spirillæ. In reference principally to their morphological rank, as well as in relation to the changes which they may undergo in form, the two vibrios are alike.

4. The conduct of both in cultures agrees in most kinds of culture procedures. Differences manifest themselves only under very closely related conditions of culture surfaces and temperature, and declare themselves not so much by *absolute* as by far more *relative* peculiarities, namely, greater energy of growth and of vitality of the vibrio of cholera nostras.

5. Of the physiological characteristics of these vibrios, we especially denote, and have already done this in an earlier paper, their marked capability of resistance against drying, against different temperatures, and against putrefaction.

6. We maintain the possibility of a condition of tenacity, and consider it probable that this tenacity of existence resembles that of one of the spores of some other microörganism of similar formation.

7. Both vibrios are pathogenic.

8. The pathogenity of Koch's vibrio is greater than that of the Finkler-Prior vibrio; this also is only a question of *relative* difference.

9. The pathogenic character does not manifest itself in all kinds of animals; far more, rather, a great number of animals possess immunity against both vibrios. They manifest themselves only under certain conditions. The animals which are susceptible to and the conditions which are favorable for the action of the bacilli are the same for both vibrios.

10. The evidences of the disease called forth by the vibrios in the bodies of animals possess a certain similarity to those of cholera in human beings; they are, however, not specific, but in the guinea-pig can be imitated by means of other infectious matters and by chemical poisons.

11. The causative connection between the comma-bacillus and cholera Asiatica is most probably shown by the constant presence of the bacillus, but is not to be considered as certainly proved by experiments on animals. The causal connection between the comma-bacillus (discovered by us) and cholera nostras is probably shown on the one hand by the constant discovery of the microörganism, on the other, by the extreme similarity of the symptoms of cholera nostras to those of cholera Asiatica, as well as in the biological and pathogenic peculiarities of the two comma-bacilli.

12. The two vibrios can reach the blood after being injected into the intestines, and are secreted in the urine. The sojourn of the Koch bacillus in the body of an animal creates an increase in the rapidity of its growth, so that thereby a still greater similarity between the two vibrios is attained in their demeanor in culture.—*Boston Med. and Surgical Journal*, August 13, 1885.

CONGENITAL LATERAL DEVIATIONS OF THE UTERUS AND THEIR RELATIONS WITH PERIUTERINE TUMORS, AND THE MECHANISM OF LABOR.—PROFESSOR LAZAREWITCH, in a contribution to the *Annales de Gynécologie* for July, 1885, wherein he discusses congenital lateral deviations of the uterus, and their relations with periuterine tumors and the mechanism of labor, sets forth the following propositions:

1. *Congenital retro-position* of the uterus depends upon the shortening of the sacro-uterine ligaments. In this position of the uterus readily originate:

a. Anteversion or anteflexion.

b. The location of tumors behind or above the body of the uterus.

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c. During pregnancy and confinement deviation of the neck of the uterus behind or above, and sacciform dilatation of the anterior wall of its lower segment.

d. During recovery after confinement anteversion and retroversion are very pronounced.

2. *Congenital ante-positions of the uterus* depend upon shortening of the anterior wall of the vagina. In this position of the uterus there occur frequently:

a. Version and flexion of the organ posteriorly.

b. The occurrence of tumors anterior to the organ.

c. During pregnancy and confinement deviation of the neck of the uterus before and above, and sacciform dilatation of the posterior wall of its inferior segment.

3. Congenital lateral displacements, right or left, of the uterus, depend upon failure in the development of the broad ligament, the ligament of the ovary, the sacro-uterine ligament, or upon failure in the development of the wall of the vagina, by which the uterus is brought into a closer relation with the pelvis. Lateral deviations of the uterus dispose:

a. To lateral version and to lateral flexion of the organ.

b. To a condition in which tumors may occur before or behind the uterus.

e. During pregnancy or confinement to a latero-version of the uterus, and to unilateral sacciform dilatation of its lower segment.

d. During the sequelæ of confinement to latero-version of the uterus.

UNGUENT FOR THE TREATMENT OF TINEA.—DESCROIZILLES recommends the following unguent for the relief either of *tinea tonsurans* or *tinea favosa*:

℞.—Butter of cacao,
Wax . . . . . āā ʒiiss.
Croton oil . . . . . f ʒv.—Mix.

Cut the hair short and remove the scales by the use of oil, then for a half minute or more, with light friction, apply a small quantity of the unguent to the diseased parts. The skin and the hair follicles soon become inflamed, and the fall of the hairs infected by the parasites is thus occasioned.—*L'Union Médicale*, August 1, 1885.

PILLS FOR PROFUSE PERSPIRATION.—

℞.—Agaricine . . . . . gr. viij.
Pulv. ipecac. et opii comp. . . gr. lxxv.
Mucilaginis . . . . . q. s.—M.
S.—Ft. pil. No. c. One or two pills daily.

Agaricine does not, like atropia, produce symptoms of intoxication when continued a long time.—*Journal de Médecine de Paris*, July 19, 1885.

ODORLESS IODOFORM.—DR. OPPLER recommends the following preparations of iodoform as being free from objectionable odor:

℞.—Iodoformi . . . . . 2 parts.
Caffeæ tostæ subtilissime pulv. . 1 part.
M.—Fiat ope spirit. æther. gtt. pulv.

℞.—Iodoformi . . . . . 1 part.
Ung. paraffin. . . . . 10 parts.
Caffeæ tostæ subtilissime pulv. . . 3 parts.

—*Centralbl. für Chirurgie*, July 25, 1885.

CASE OF CONGENITAL ABSENCE OF THE RIGHT KIDNEY.—DR. HOFACKER reports a case of congenital absence of the right kidney. The case is as follows: A post mortem was held on a child eight years of age, who had died of caries of the ilium and sacrum. The right kidney having been discovered to be absent, attention was drawn to the unusual development of the left kidney. This was nearly five inches in length and nearly three inches broad, double the size corresponding to the age and development of the child. Upon the right side no trace of a kidney was to discovered. To the left kidney a large renal artery proceeded, while on the right side no trace of this vessel existed, the aorta at the ordinary point of origin of the vessel being perfectly smooth; the right renal vein was also absent. In the bladder there was no opening corresponding to the entrance of the right ureter, but only a slight depression by which the trigone of the bladder was preserved. From the outer wall of the bladder it was possible to trace through the retroperitoneal connective tissue a cord which in one place permitted the entrance of a bristle and lost itself in the region corresponding to the normal location of the right kidney. This, without doubt, represented an undeveloped ureter.

The vasa deferentia were normal. The seminal vesicle on the right side was rudimentary and smaller than that of the left. The right testicle was absent. The bifurcation of the aorta was normal, and other abnormalties in the development of the different organs were not discoverable.—*Deutsche med. Wochenschr.*, July 23, 1885.

PHYSIOLOGICAL EXPERIMENTS UPON A DECAPITATED CRIMINAL.—MM. P. REGNARD and P. LOYE, in a series of physiological experiments made upon a decapitated criminal immediately after execution, consider that the following facts are established:

1. That sudden and general contractions occur at the moment of excitation of the spinal cord by the passage of the guillotine.

2. The disappearance of the reflexes, even the coarsest.

3. The evident action of the pneumogastric upon pulmonary contractility.

4. The manifest influence of the fibres of Reissessen upon this same contractility.

5. The innervation of the stomach and intestines due to the pneumogastric.

6. The plain influence of the vagus upon intestinal secretion.

7. Finally, verification of the mechanism of the muscles of the heart.

These physiological experiments simply confirm the results of those hitherto made on animals.

On the other hand, MM. Regnard and Loye hold that the facts observed in reference to duration of consciousness, may possibly confirm the belief of those psychologists who fear its persistence after capital punishment.—*Le Progrès Médicale*, July 18, 1885.

THE USE OF LACTIC ACID IN LARYNGEAL TUBERCULOSIS.—DR. H. KRAUSE, in following up the experimental application of lactic acid as pointed out by V. Mosetig-Moorhof, who has found it valuable in the local treatment of fungous caries, lupus vulgaris, super-

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ficial epithelioma, and papilloma, has made use of the remedy in the local treatment of laryngeal tuberculosis. The cases which he records had previously been under treatment, and a great variety of agents was used without beneficial result. Among the remedies used were iodoformized glycerine, boric acid, carbolic acid, and creasote either with morphia or cocaine.

The cases in which the pathological condition was treated are fourteen in number, and microscopic examination showed the presence of the bacillus tuberculosis in every instance. The results of the local application of the lactic acid were as follows: Hand-in-hand with the decrease of the infiltration and the scar of the ulcer a diminution of pain was noticed, and at the same time diminution of the secretion. The subjective result so far as the larynx is concerned is, that in all the patients, without exception, the condition was markedly improved.

Concerning the return and persistence of the cure after cessation of treatment nothing can be reported on account of the limited time covered by the observations. Dr. Kraus considers, however, that the use of the acid is of certain efficacy in the treatment of this form of tuberculosis, and especially worthy of trial in the light of the failure hitherto experienced in the treatment of this affection of the larynx.

Even in cases in which, owing to far advanced pulmonary tuberculosis, and the general effects of the disease, only a most unfavorable prognosis could be given, the dysphagia accompanying the disease was much diminished by lessening perichondrial œdematous infiltration. The writer further does not hesitate to express a hope that in the least unfavorable cases in which laryngeal tuberculosis has not advanced too far, and the general constitution is well conserved, the use of lactic acid will render it possible to destroy the infiltrated tissue and effect the concurrent cure of the local process. The writer, in conclusion, also suggests the application of lactic acid in other diseases of the mucous membrane of the upper air-passages, among which may be mentioned the diffused swelling and circumscribed thickening accompanying chronic nasal pharyngeal and laryngeal catarrh.—*Berliner klin. Wochenschr.*, July 21, 1885.

THE DEPRESSING ACTION OF IPECAC ADMINISTERED IN LARGE DOSES UPON THE BLOODVESSELS IN PNEUMONIA.—DR. FERDINAND VERARDINI, in an excellent clinical and experimental study of the action of large doses of ipecac upon the bloodvessels in pneumonia, reaches the following conclusions:

1. Large doses of ipecac have been given empirically during past years by the most prominent physicians, as a depressing and antiphlogistic remedy in fibrinous pneumonia.

2. The use of large doses of ipecac (30, 60, 90, 120 grains, according to the case, and administered in twenty-four hours) has no harmful influence upon stage of sanguineous stasis, nor upon cardiac paralysis, and its emetic effect is only manifested exceptionally.

3. Without doubt the doses under consideration have beneficial influence upon the disease by diminishing the flow of blood to the lungs, and by facilitating the resolution of the pneumonia without causing the least risk to the patient.

4. That large doses of ipecac produce effects in the organism distinct from those of emetia. M. Verardini thinks he is the first to mention this fact. In reality, ipecac produces pulmonary ischæmia, although the active principle, emetia, occasions a very pronounced hyperæmia. These facts have been recognized experimentally.

6. The author, by producing simple pneumonia in animals, by means of divers irritating substances, such as cantharidine, ammonia, and pneumonic sputa, carried directly by the bronchi into the pulmonary parenchyma, has been able clearly to establish the comparative action of ipecac and emetia upon the heart and lungs.—*L'Union Médicale*, July 30, 1885.

CHOLECYSTOTOMY.—M. THIRIAR, in a communication to the French Congress of Surgery (*Revue de Chirurgie*, No. 5, 1885), deals with the following objections to cholecystotomy, an operation first performed by Langenbuch, of Berlin, in 1882. 1. The existence of a gall-bladder is necessary for the purposes of digestion in man. 2. Calculi may be formed elsewhere than in the gall-bladder. 3. The operation is a very serious and dangerous one. 4. Cholecystotomy or the production of a biliary fistula ought to be preferred. It is argued by M. Thiriar that the gall-bladder is not indispensable to the regularity of the digestive functions in man. This organ is absent in many of the mammalia, and occasionally it is found completely closed and atrophied in man. The formation of calculi elsewhere than in the gall-bladder is an extremely rare occurrence, except in certain pathological conditions which give rise to such formation in the biliary ducts and canals. These pathological conditions (cancer, obstruction of the biliary passages), however, constitute a formal contra-indication to operative interference. Cholecystotomy, it is acknowledged, is decidedly a difficult and delicate operation, but in considering the much diminished dangers of peritoneal lesions when produced with strict observance of the antiseptic method, M. Thiriar is of opinion that this procedure is the least severe and the least dangerous of all the varieties of laparotomy. It is a justifiable operation, he holds, in cases of biliary lithiasis that have resisted medical treatment, and in which violent paroxysms occur from time to time. With regard to the operation of cholecystotomy that has been proposed by Mr. Lawson Tait, although it is less difficult than cholecystectomy, it is attended by the inconvenience of leaving a biliary fistula, a condition not free from danger. Moreover, as it does not remove the organ in which gall-stones are formed, the production of these bodies may be continued. Two cases of cholecystectomy are reported in this paper. In one, the patient was a woman, aged 43. The gall-bladder contained a mass of thick bile, but no calculus. The operation lasted during one hour and a half, and resulted in complete success, without any complications. The subject of the second case was a woman in the fifth month of pregnancy. The gall-bladder contained twelve calculi. The operation lasted during one hour, and proved successful. The progress towards recovery was uninterrupted, and the pregnancy followed the usual course.—*The London Medical Record*, July 15, 1885.

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SATURDAY, AUGUST 22, 1885.

THE CHOLERA.

SINCE our last editorial on "Cholera Prospects," in THE MEDICAL NEWS of July 25th, the situation in Europe has materially changed for the worse The disease is spreading in Marseilles, cases have occurred in Gibralter, and a suspicious case has been reported from Bristol, England, causing considerable alarm in that country. In Spain cholera has continued to increase, and for the last week there have occurred in that country between five and six thousand cases and about fifteen hundred deaths per day, and the situation in certain localities, as described in the press despatches, is very gloomy, recalling the descriptions of scenes during the black death of the middle ages. In some villages all the physicians are dead, and dead bodies are lying in the streets, there being no one to bury them. The revenues of the kingdom are beginning to suffer seriously, and the Government finds it difficult to provide funds to meet the demands made upon it for assistance.

Any day may bring the news that the disease has gained a foothold in England, or in South America, or in West Indian ports in immediate communication with Spain. This country is therefore not only in danger, but in immediate danger, and our health authorities must hold themselves ready for the emergency. We do not anticipate that such scenes as have occurred in Spain will be repeated either in Great Britain or the United States, nor do we fear a great epidemic in either country, knowing the power which exists to stamp out the contagion by prompt and intelligent action.

An example of what can be done in this way was afforded in the city of Genoa last year. This city receives its drinking water by three different aqueducts drawing from three different sources. The first case of cholera appeared in Genoa on the 20th of September, and for the next three days there were two or three new cases each day, but on the 25th there were 51 cases. Investigation showed that no cases of cholera had existed in the vicinity of the sources of two of the aqueducts, but that the third might have been contaminated by cases which occurred on one of its feeders, fourteen miles away, on the 14th and 15th of September; and that of the first fifty cases of cholera in the city, 48 occurred in persons who habitually used the water brought by this aqueduct. The mayor of the city at once had this aqueduct closed, and by the first of October the daily number of cases of cholera had dropped to 27, from which date it rapidly disappeared. In this case skilled investigation located the cause and the executive action was prompt.

The next two months will be very dangerous to the north of France, Germany, the Netherlands, and Great Britain, and dangerous to this country, but we still have good reason to hope that the visitation of cholera to the United States will be deferred until next year, and thus permit another winter of sanitary work and preparation for what is almost sure to come sooner or later.

CHLORATE OF POTASSIUM POISONING AND ITS MORBID ANATOMY.

PERHAPS few announcements created more surprise, and few have been more incredulously received than that chlorate of potassium is a poison, and that instances of its poisonous effects are numerous. The first assertion is, however, undoubtedly correct, while the second also, must be admitted, if accuracy has been employed in the collection of cases, since, for instance, a thesis by Weinert is based upon a record of fifty cases, and Wegscheider has collected thirty cases.

It is true that most of the instances of poisoning reported are by quantities which are scarcely likely to be often taken, but, in the case of a remedy which has been so highly and universally esteemed, and which has generally been regarded as harmless, it becomes essential that all should appreciate its exact toxicological position. Accordingly, we avail ourselves of a case recently reported by Dr. Wilke, of Halle, in the *Berliner klinische Wochenschrift*, for April 20, 1885, in which the use of the salt as a gargle resulted fatally.

The patient, whom Dr. Wilke saw about 3 o'clock of August 8th, had, previous to his present illness, enjoyed good health. In the early part of the night previous he was restless, and therefore his wife did not arouse him early; when, however, she went to his bed, she found him unconscious, and subse-

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quently aggravated biliary vomiting set in. Closer examination discovered extreme pallor, a cyanotic skin, cool extremities, a small and frequent pulse, and a temperature below normal, although it was impossible to determine it precisely by the thermometer, on account of the patient's restlessness. The mouth could only be opened by using great force, but there were perfect motor power and sensibility. The lungs were normal, the heart simply weak. There was tenderness over the stomach and its neighborhood, but some of this may have been due to a mustard plaster which had been applied by the physician previously in attendance. The remaining abdominal organs were healthy, and a healthy stool was secured by an injection.

Dr. Wilke at once suspected poisoning by some cause. No urine had been passed since the previous evening, a teacupful of dark-hued, turbid urine was drawn off by the catheter. This suggested to him chlorate of potassium poisoning. On further questioning, he learned that none had been taken internally, but that in consequence of a slight sore throat the patient had, for some time, been gargling his throat with a solution of the salt. Recently he had used it hourly, and had done so even the night previous. He had always bought from the apothecary large quantities of the drug, and being a very nervous man, even hypochondriacal about his throat, was determined to cure it at any price. Lately he had become very weak and pale, and two weeks previously had noted his urine to be so dark-colored that he sent for his physician, and consulted him as to the propriety of using the gargle. The doctor took some of the water, but seems to have made no report on it, giving the opinion that, as the potash was being used only as a gargle, it could not harm him. The patient continued to use the gargle from the 9th of July to the 8th of August, taking, it was estimated, over four pounds, or one and three-fifths ounces a day. Treatment was unavailing, and he died of collapse.

At the autopsy only a trifling amount of blood flowed from the abdominal aorta and vena cava, although great care was taken to secure it. The bladder was empty, but the urine drawn off before death contained a black sediment which the microscope showed to be made up of red corpuscles whose normal characters were markedly altered. They were, in various degrees, paler than in health. Some had apparently lost all their coloring matter. None were disk-shaped, but almost all spherical. Some were, however, elongated; some uneven and irregular. Most were smaller, but a few were larger than the normal disks. The smallest were disposed to adhere, but rarely was there any appearance of fibrin between them. Casts of the uriniferous tubules were also present, characterized by their unusual width and their irregular surface, and there were a few leucocytes, some of which contained some of the smaller corpuscles.

The kidneys were of normal size, the capsule stripped off readily. The external surface and section were darkened, and the pelves contained a sediment which agreed with that found in the urine. Dark brownish red striæ were observed in the cones running parallel with the straight tubes, and in the cortex were similar striæ less wide and less numerous, and more irregular in their course. These were found to be uriniferous tubules, distended with altered corpuscles, most numerous in the medulla and especially the neighborhood of the papillæ. In the cortex the tubules of the medullary rays were more often distended than the convoluted tubules of the labyrinth. In addition to the individual corpuscles contained in the tubules, there were also numerous irregular, lumpy, and cylindrical bodies apparently made up of the altered red corpuscles, or in some cases of their shells, as it were, fused into an infarcted mass. The epithelium of the tubules, where discoverable, was highly granular, especially in the cortex, where the nuclei of the cells were often obscured or invisible.

Granted, as seems necessary, that the above is a case of true chlorate of potassium poisoning by the drug used as a gargle only, it must also be admitted that such cases are extremely rare. That a man should use nearly an ounce and a half of the salt daily, for one month, in gargling his throat, almost presupposes a monomania on the subject, and it would seem exceedingly unlikely that such an experience should be often repeated, or that the use of the salt as a gargle is a dangerous practice. But Wormley, in his *Michro-Chemistry of Poisons*, reports a case related by Croft, in which a young woman, directed to gargle with a solution of potassium chlorate, and occasionally swallow a little of the solution, used nearly half a pound of the salt within a few days. Violent symptoms including vomiting, diarrhœa, subsequent constipation, and suppression of urine were followed by death in seven days.

Much smaller quantities internally administered are capable of producing poisonous consequences. Wormley reports another case in which a man took, in teaspoonful doses, during thirty-six hours, about two ounces of the salt. Collapse and suppression of urine were followed by death. Still another in which four children, from three to seven years old, took 154, 184, and 375 grains in, at most, thirty-six hours. All three died. An elderly man took, by mistake for Epsom salts, something over half an ounce and died in consequence. The autopsies in all these instances revealed conditions strikingly like those described in Wilke's case.

It is the domestic use of the medicine which is

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most to be feared. The extreme frequency of throat affections in this climate, and the almost invariable use of chlorate of potassium for them, together with the prevailing impression that the drug is harmless in almost any quantity, make it not impossible that accidents like that just detailed may occur.

THE ETIOLOGY OF POLYHYDRAMNIOS.

THE origin of the amniotic liquor has been the subject of many investigations and of much discussion. Some have asserted that this liquor is a maternal, others a fœtal product, while the view now generally accepted is that it is partly derived from the mother and partly from the fœtus. Kormann, the most recent writer of a German work upon obstetrics, published at Tübingen in 1884, regards the amniotic liquor as coming from the vessels of the cord, from the vessels beneath the amnion, described by Jungbluth, and the vessels of the reflexa, and as partly, especially in the last months of pregnancy, consequent upon the activity of the kidneys of the fœtus. Afterward in considering the various causes of hydramnios, he fails to refer to its possible origin from the blood-vessels of the cord. Yet it would seem rational that if the amniotic liquor is in part due to the serous portion of the fœtal blood passing from the vessels of the cord, that there might be such excessive transudation as to cause hydramnios.

A most interesting case of hydramnios sustaining this hypothesis has recently been published by MANGIAGALLI in the *Annali di Ostetricia*. A woman near the end of a twin pregnancy suffered so much from distention, that puncture of the ovum presenting was made. The quantity of fluid discharged was small, but the alleviation of the patient's distress was very decided. Labor came on, and she was delivered of a living child by the forceps. The second bag of waters was then ruptured, six litres of water discharged, and the second child, presenting by the breech, was born. An examination of the secundines showed that there were two distinct pouches and two placentæ. One of the cords presented nothing abnormal, but the other, belonging to the hydropic sac, was only eleven inches long, encircled the child, and at two and one-third inches from the placenta it divided so that its parts were inserted in the partition wall between the two ova—upon this wall four very large ramifications of the umbilical vein, which was also large and distended, passed to the placenta—there being thus velamentous insertion of the cord.

Mangiagalli believes that the chief cause of hydramnios in this case was the increased tension in the umbilical vein and its vicinity by the abnormal disposition of the cord and its vessels.

A case reported by SCHATZ in the *Archiv f. Gynakologie*, 1882, presented the same condition of scanty liquor amnii in one pouch, and excess in the other.

GRENSER, in the *Centralblatt für Gynäkologie* of July 11th of this year, has reported two additional cases of this anomaly, occurring in twin births, in one sac of each there was polyhydramnios, and in both the others, oligohydramnios.

MUCIN.

STILL another of the proteids, which, according to many urinologists, interfere with the reliability of certain tests for albumen, is mucin. A very much more frequent constituent of urine than either peptone or propeptone, it is correspondingly important that it should not be mistaken for albumen. That hemialbumose or propeptone is an unusual constituent of urine is generally understood; but so much has been written, of late, of peptone, that there is danger of it being supposed that it is very common. But Dr. Johnson, who has made a systematic search for peptone, found it but once in some hundred specimens of urine. Mucin, on the other hand, is a much more constant constituent, and in the light of the latest information, we feel assured that many have not infrequently mistaken it for albumen.

A few words as to mucin itself. The glairy semi-transparent substance known as mucus, so familiar to all of us by its appearance in the nasal and respiratory passages in response to the slightest irritation, is mucin swollen by imbibition of water. But the words mucus and mucin are also interchangeably used. According to the analysis of Eichwald, mucin contains in 100 parts, 49.94 of carbon, 6.80 of hydrogen, 8.5 of nitrogen, and 35.75 of oxygen, but no sulphur. It completely disappears on ignition. It is abundantly present in the salivary glands, in the bile, in the contents of synovial sacs, in the mucus of the bronchial and intestinal mucous membranes, in the Whartonian jelly, and to a slight extent, it is said, in many, if not all, urines. In certain morbid urines it is very abundant.

It swells up enormously in water, without, however, being dissolved by it, but is soluble in dilute alkaline solutions, such as the urine, whence it is precipitated by acetic acid, an excess of which does not dissolve the precipitate. It is precipitated by alcohol, by all dilute mineral acids and by all the organic acids, including citric and acetic, and excepting, according to Dr. Johnson, picric acid. It is dissolved by concentrated mineral acids, but precipitated from solution in these on the addition of water. The presence of alkaline salts facilitates its solution in acids. The neutral and alkaline solutions of mucin are not precipitated by cupric sulphate, corrosive sublimate, or neutral acetate of lead, but

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promptly by the basic acetate of lead. Millon's reagent strikes with the solutions of mucin, in connection with heat, a rosy-red color. After heating with hydrochloric acid mucin gives the sugar reaction with Trommer's test. It will be seen from the above, how important is a knowledge of mucin and its properties.

In consequence of its capacity to act as a ferment, on account of which it is held responsible for the acid and alkaline fermentations of urine, mucin has been called by Bechamp, nephrozymase.

As to the recognition of mucin, it is well known that in inflammatory diseases of the urinary passages it is often so abundant that it is easily recognizable in suspension in the urine. From solution in urine it is precipitated by any of the vegetable acids, though acetic is mostly used. If urine be underlaid with acetic or nitric acid, the mucin gradually appears in the urine above the point of contact, as a cloud-like, rather than opaque white coagulum like albumen; and when albumen and mucin are both present, the latter appears at the upper part of the column of urine, while the albumen is confined to a position just above the point of contact between the two fluids. It differs from the somewhat similar white deposit of acid urates in that it is not dissipated by heat. It is plain, therefore, that any test which requires the simultaneous use of citric or acetic acid is liable to error from this source. Such, however, is not the case, according to Dr. Johnson, with picric acid, which is, therefore, according to him, the only one of the comparatively new tests for albumen which can be relied upon.

To demonstrate the smaller quantities of mucin it is usual to treat urine with twice its bulk of 95 per cent. alcohol, filter off the precipitate, and add water. The solution thus obtained is rendered turbid by acetic acid, and the turbidity does not disappear on adding an excess of acetic acid, but does on adding hydrochloric or nitric acid. It exhibits with caustic soda and solution of cupric sulphate the biuret reaction, which is not obtained with the filtrate after separating the precipitate with neutral acetate of lead.

AN EXTRAORDINARY CAUSE OF VESICO-VAGINAL FISTULA.

MASSALITINOW, in the *Centralblatt für Gynäkologie*, has reported two cases of severe injury in newly married women from the first coitus. In the one case there was very serious hemorrhage from a tear of the perineum, and also of the vagina. In the other, a healthy, nineteen year old girl, hemorrhage, less grave, however, occurred; and, upon examination, three days after, a urinary fistula was found near the margin of the uterus, which was anteflexed. Massalitinow explains the occurrence of this lesion by supposing that, the vagina being short, and, at the time of coitus, the bladder being full, hemorrhage into the vesico-vaginal wall occurred at this point, and then ulceration opened a communication between the bladder and the vagina.

This explanation does not seem quite satisfactory, and probably, as suggested by Reimann, there was in each case other violence than any done in coition to explain such lesions. It is to be regretted that men who inflict such cruel injuries upon women do not have as certain, swift, and severe punishment visited upon them as befalls the adventurous male bee who impregnates the queen.

UNDER the title of "Progress of Public Sentiment," the *Journal of the American Medical Association* in its issue of last Saturday, cheerily states that:

"Evidences are not wanting that the principal performers in the grand comic play of "Much Ado about Nothing," which was commenced so brilliantly on the 29th of June by twenty-eight prominent members of the profession in Philadelphia, are becoming weary of their work. Some who were induced to join in the play from the first impulse have already withdrawn, and others are evidently preparing to follow.

"Dr. John H. Packard, of Philadelphia, who was appointed Secretary-General of the Congress by the Committee of Arrangements at the meeting in Chicago, and whose name was published as one of the twenty-eight who declined to accept any place in the revised organization, has recently withdrawn his declination and accepted the position."

We are just informed by Dr. Packard that the above statement, so far as it concerns him, is absolutely false and without foundation, and that he has written to the Editor of the *Journal of the Association*, a letter for publication to that effect. While the New Committee has never had any claim to public support, we yet regret that, to stimulate its waning strength, it should still further estrange public confidence by again resorting to the method of wilful misrepresentation to which it owed its birth.

Under the circumstances it is necessary for the *Journal of the Association* to present the proof of the correctness of its statement concerning the intentions of other gentlemen, before the profession can give to it unqualified belief.

REVIEWS.

CHOLERA: ITS ORIGIN, HISTORY, CAUSATION, SYMPTOMS, LESIONS, PREVENTION, AND TREATMENT. By ALFRED STILLÉ, M.D., LL.D. 12mo. pp. 164. Philadelphia: Lea Brothers & Co., 1885.

A TREATISE ON ASIATIC CHOLERA. Edited and Prepared by EDMUND CHARLES WENDT, M D., in association with DRS. JOHN C. PETERS, of New York; ELY MCCLELLAN, U. S. A.; JOHN B. HAMILTON, U. S. Marine-Hospital Service; and GEORGE M. STERNBERG, U. S. A. With Maps and Engravings. 8vo. pp. 403. New York: William Wood & Co.

WE should be well prepared to meet this dread scourge if it crosses the Atlantic either this year or next

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Ample warning has been given, and the sanitary authorities seem alive to the necessity of taking all proper precautions to avoid its importation. The publication of these works meets a demand on the part of the profession for fuller information on the subject than can be obtained from ordinary text-books.

Dr. Stillé's work supplies this demand in a way which will, we feel sure, meet the approval of every practitioner who reads this "complete but compendious history of the disease as it occurred at different periods and in various countries." The sections on prevention and treatment are specially valuable. The author does not accept the conclusions of Koch regarding the bacillus.

Dr. Wendt's treatise naturally lacks the unity and continuity of the smaller work, as it is in reality a series of essays on cholera by various authors, which will prove most serviceable for reference.

Dr. Peters gives in detail a history of the epidemics from the earliest up to the present one, dealing very fully with the American outbreaks. Dr. Ely McClellan describes the epidemics as they have occurred in the American army. The section on Etiology, by Dr. Wendt, is carefully prepared, and all possible theories are discussed. The recent investigations of Koch and others are fully discussed, and the Editor favors the view that the comma-bacillus will be found to be the specific germ of the disease. The chapters on Symptomatology, Course, Sequelæ, Morbid Anatomy, and Treatment are also by Dr. Wendt. Chapter XXXVII., on the Methods of Bacterioscopy, is a piece of unnecessary padding. Dr. Sternberg writes an interesting section on the destruction of cholera germs, and Dr. John B. Hamilton discusses quarantine and other preventive measures. Eight maps and charts, with several woodcuts, add to the value of the work.

THE INVALID'S TEA-TRAY. By SUSAN ANNA BROWN, author of "Forty Puddings," "In Bridget's Vacation," etc. Pp. 67. Boston: James R. Osgood & Co., 1885.

THIS slender little book, with its white margins of such unusual width, that a blankness overspreads the entire volume, is perhaps intended to be gently significant of the spareness of the diet which a sick man may be invited to enjoy. It is courteously dedicated to the family physician

> "Whose genial visit in itself combines,
> The best of cordials, tonics, anodynes;"

and after a few preliminary hints excellent in their character, the author gives some seventy or eighty recipes for various culinary preparations. These formulæ might easily have been printed so as to cover less than a couple of leaves, but by placing one or two only in the centre of a page the number of sixty-seven is attained. Page sixty for example, is thus constituted: "SHELLS. Put one cupful of shells in a quart of cold water and place on the stove where it will simmer gently five or six hours. Add more water, if necessary, while it is boiling. There should be about a pint when it is done."

For any specification to the contrary the "shells" here directed may be oyster-shells, and if such conchological specimens are used, exact instructions as to the degree of concentration required in the resulting concoction are surely needless.

SOCIETY PROCEEDINGS.

CHICAGO GYNECOLOGICAL SOCIETY.

Stated Meeting, June 19, 1885.

THE PRESIDENT, H. P. MERRIMAN, M.D., IN THE CHAIR.

PROF. J. H. ETHERIDGE read

A REPORT OF A CASE OF A FŒTUS ENCLOSED IN ITS SISTER'S PLACENTA, WITH EXHIBITION OF THE SPECIMEN.

On 26th September, 1882, Mrs. T. J. B., twenty-two years old, of a nervous, sanguine temperament, healthy, was delivered of a mature female child, after a normal labor of four hours' duration. During the delivery of the placenta some abnormity was detectable, which proved to be a *fœtus papyraceus*.

The outer surface of the placenta at once arrested attention. A deep furrow separated the two placentæ, which were united, on their amniotic surface, by a series of compact white bands, discoverable only by pressing through the furrow. The large placenta constituted about two-thirds of the entire mass. The smaller placenta was thin, flat, and compact, being about one-third as thick as the larger one.

The placenta of the living child was normal throughout its extent. Cotyledons were well marked, the tufts and villi presenting normal microscopical characters. The placenta of the *fœtus compressus*, in about nine-tenths of its extent, was whitish-yellow, and very firm. The whole thickness of this portion of the placenta, excepting its amniotic surface, presented one unbroken mass of fatty degeneration. The remaining one-tenth of the placenta presented a carneous appearance, evidently a transition stage between normal placenta and complete fatty destruction. Its cotyledons were enmassed and its tufts and villi solidified, and the whole interspersed with initial fatty depositions.

The two segments were wholly different at time of birth. The placenta of the living child presented a normal appearance. The placenta of the *fœtus papyraceus* presented the appearance of a closed bladder, which, upon examination, was found to be an unruptured amnion, containing amniotic fluid and a fœtus. The development of the *fœtus compressus* corresponded to the third month. The cord of the *fœtus papyraceus* was two inches longer than that of its fellow, and much thinner. The cord was inserted into the margin of the placenta, near the fully developed organ.

Among the causes producing the death of the fœtus, the following may be mentioned: 1. Faulty insertion of the cord, at the margin of the placenta, adjoining its fellow (Kieselhausen). 2. Faulty structure of the cord; thin, twisted, or deficient in the jelly of Wharton (C. Braun). 3. Disease of the placenta. 4. Traumatism. 5. The implanting of the umbilical vessels too closely together, and arterial anastomosis.

Fœtus papyraceus is of seldom occurrence. A search

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through the library of the Surgeon-General's Office at Washington resulted in finding only five references to reports of similar cases.

DR. PHILIP ADOLPHUS thought that such cases were of more frequent occurrence than the remarks of the author of the paper would lead one to believe. In twin pregnancy, the death of one fœtus before parturition was not infrequent.

PROF. W. W. JAGGARD agreed with Dr. Adolphus that while such cases were rare, a more extended research into the literature of the subject would have revealed a much larger number of cases. While it was true that American and English text-books usually merely mentioned the fact of occurrence, German, French, and Italian treatises devote a chapter to the subject. The last edition of Schroeder contained an excellent *résumé* of the literature. The case, reported and exhibited by Prof. Etheridge, resembled in many points the case in the Pathological Museum of the Jena Lying-in Hospital, fully described by B. S. Schultze. This specimen showed the placenta of a mature fœtus, and adjoining it a second egg, corresponding to the sixth week of pregnancy, with its own decidua and unruptured amnion.

Prof. Etheridge's case was chiefly interesting as bearing upon a subject of theoretical importance, *i. e.*, superfecundation and superfœtation, On *à priori* grounds, it is possible that superfœtation can occur as late as the twelfth week of pregnancy—when *decidua vera* and *reflexa* become united. Up to this time, it is possible that egg and spermatozoid may come in contact. Superfœtation is also possible in cases of double uteri. Up to the present time, however, no case has been recorded which does not admit of a simpler explanation. There exists a great weight of evidence in favor of superfecundation. Mares give birth simultaneously to horse and mule foals; bitches, running during the period of rut with different breeds of dogs, throw young of different, so-called bastard forms, corresponding to the breeds of the male progenitors; the same is true of cats.

A woman may give birth to twins, one of which is white, one black. The latter fact, however, does not necessarily demand for its explanation intercourse at or near the same time with a white and a black man, since in crossing races the offspring may resemble either father or mother, or one child may resemble the male, the other the female progenitor. There could be no reasonable doubt as to the accuracy of Prof. Etheridge's diagnosis.

DR. JOHN BARTLETT had seen one case of *fœtus compressus*, in the Chicago Woman's Hospital, about four years ago. One fœtus was mature, the other corresponded in development to the fifth month of pregnancy.

DR. EDWARD WARREN SAWYER referred to the fact that in ectopic pregnancy no compression of the fœtus was observed. He alluded to a case, in which he performed laparotomy three and one-half years ago. The fœtus weighed eight pounds. There could be no question about superfœtation in Prof. Etheridge's case. Fœtation, by inclusion, might be considered as explanatory of many of the monstrosities which are so commonly seen.

PROF. DANIEL T. NELSON thought it would be interesting to know how much force was necessary to compress the fœtus as in Prof. Etheridge's specimen. He referred to the experiments of Prof. Park, of the Massachusetts Agricultural College, in the determination of the expansile force of growing squashes and pumpkins.

THE PRESIDENT wished to know whether the death of the fœtus occurred before compression, or whether it resulted from that factor. The marginal insertion of the cord doubtless was an important etiological agent. When the uterus was in the pelvic cavity, compression was greater. He referred to the fact that in twin pregnancies, it is unusual to find both children equally developed, and frequently the birth of one precedes that of the other by minutes, hours, or even days.

DR. HENRY T. BYFORD read a

REPORT OF A CASE OF LEIO-MYOMA OF THE VAGINA AND UTERUS.

The patient was a widow, about thirty-five years old. Was married ten years, without becoming pregnant. She had no decided symptoms of disease, except an occasional backache, some leucorrhœa. She was treated for uterine inflammation three years before, and no tumor was discovered. Since that time, she has menstruated every two weeks. Catamenia usually lasted five days, and were normal as to quantity. Twelve years ago, she noticed a tumor about the size of a hickory nut just within the vagina. This swelling had since that time grown steadily, until its protrusion from the vagina, about January 12, 1885, caused great inconvenience. Even at that time, the pain was promptly relieved by an opiate, administered by Dr. Doering. Two or three days subsequently, the tumor became black, swollen, and emitted a gangrenous odor. Slight septicæmia followed cauterization with nitric and carbolic acids. The tumor was attached to the anterior wall of the vagina. The tumor was subsequently crushed off, and the patient recovered. Indagation revealed a protuberance, about the size of a goose egg, upon the right anterior surface of the uterus, which was apparently a leio-myoma.

The following points of interest are to be noted in connection with the case:

1. The occurrence of both tumors in the same person.
2. The slow growth of the vaginal as compared with the uterine tumor.
3. Sloughing of the capsule, immediately after protrusion from the vagina, without impairment of the vitality of the tumor, proper.
4. Entire absence of sensitiveness to strong acids.
5. The production of a pedicle by ligaturing the proximal end with a fine wire.
6. Sterility, antedating the discovery of the uterine tumor.
7. The influence of ergot upon the uterine tumor.

DR. EDWARD WARREN SAWYER thought the locality of the vaginal tumor was interesting but not unusual.

PROF. DANIEL T. NELSON inquired whether or not fibroid tumors occurred by preference in the anterior vaginal wall. He thought, as regards the operation, an elliptical incision around the base, and enucleation of the tumor, would have fulfilled the indications equally well.

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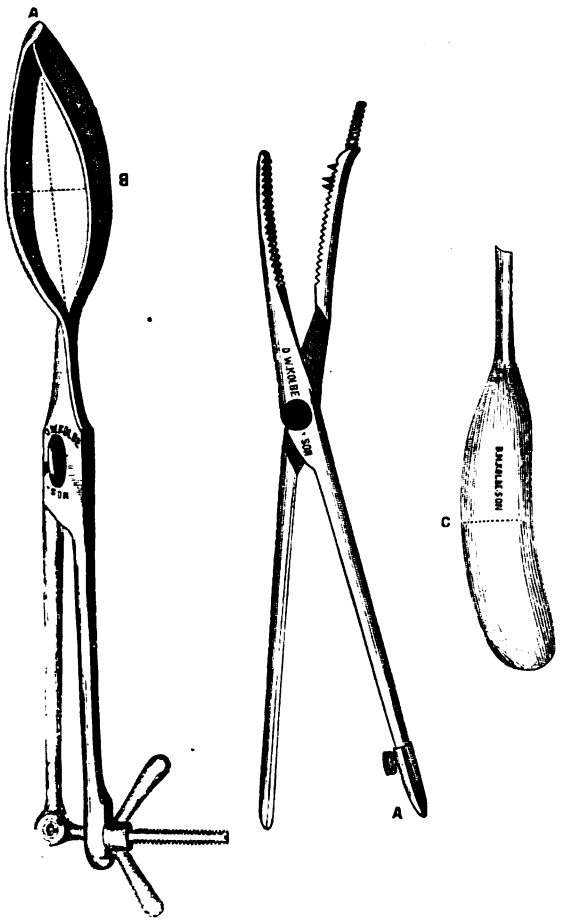
NEW INVENTIONS.

NEW CRANIOTOMY INSTRUMENTS.

BY JOSEPH PRICE, M.D.

THE craniotomy forceps figured below have the following peculiarities: 1. Thin flat blades, one and three-quarter inches wide, to allow easy application in markedly deformed pelves, and the weight principally distributed in the handles. 2. The Hodge angulation for use on the superior strait. 3. The absence of fenestra to increase the strength of the blades for powerful compression and traction, and to allow more ample protection in operative procedure during perforation, etc. 4. A greater cephalic curve, so that the points come in apposition to prevent slipping. 5. A screw on the end of the handles to cause greater compression than could otherwise be exerted.

Another forceps for a similar purpose, one specially intended for effectually crushing the occipital and facial



bones, has one blade (handle) terminating in a flat sharp-pointed perforator; this is covered in use by a leather shield to protect the soft parts during introduction. This shield is not removed, but the perforator cuts through it when it is pressed firmly against the fœtal cranium. The other blade has attached to it a blunt screw, which is intended to be screwed into the spinal canal of the child for aiding traction, and fixation for crushing the occipital and facial bones. This screw is so blunt that damage could hardly be done *even by an inexperienced operator*. Made by Mr. Kolbe, instrument-maker, 1207 Arch Street, Philadelphia.

1317 SPRING GARDEN STREET,
August 14, 1885.

CORRESPONDENCE.

TREATMENT OF THE OPIUM HABIT BY CODEIA.

To the Editor of THE MEDICAL NEWS.

SIR: I desire to call your attention to a remedy for the opium habit. I first commenced the use of this remedy in 1883, and since that time twenty-four cases have been permanently cured under my treatment by the use of this drug. It is codeia, a drug with which all physicians are familiar; but I have known but two members of the profession who were acquainted with the proper method of its use for this trouble. In order to use the remedy properly it is necessary to be thoroughly familiar with the past life of the patient, the length of time opium has been used, and the amount used. To cure the patient of the habit I commence, as a rule, with two grains of codeia three times a day, and increase the dose until the same effect is produced upon the system that is produced by the opium.

After the use of opium has been supplanted by the use of codeia, the system has become accustomed to a drug the use of which can be dispensed with in a very short time. Codeia, when used in this manner, does not block up any of the secretions, and has no other effect upon the stomach than to give the patient a slight increase of appetite. It has a slight tendency to constipate the bowels; and with some it produces an after depression, but not with those who have used opium to any great extent.

Previous to the use of this remedy it was my practice to use coca in certain cases. I found, however, that it constipated the bowels, and took away the appetite; and that, after continued use, it was almost as difficult to get rid of the coca habit as it had been to become relieved from the morphia.

With the use of the remedy some patients must have a tonic treatment; and if constipation exists, I have found the aloin pill, No. 1, to be the best remedy.

Respectfully,
W. H. LINDENBERGER, M.D.

BARTLETT SPRINGS, CALIFORNIA, August 6, 1885.

NEWS ITEMS.

CHICAGO.

(*From our Special Correspondent.*)

THE ANATOMICAL BILL.—Success has at last crowned the efforts of the Demonstrators' Association of the State of Illinois. As the result, more particularly of the zeal, industry, and united effort of the members of this Association, "An Act to promote the science of medicine and surgery in the State of Illinois," was passed 24th June, 1885, approved 26th June, 1885, in force 1st July, 1885.

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The Act provides: I. That superintendents of penitentiaries, houses of correction, and bridewells, wardens of hospitals, insane asylums, and poor-houses, coroners, sheriffs, jailors, city and county undertakers, and all other State, county, town, and city officers in whose custody the body of any deceased person, required to be buried at public expense, shall be, shall give permission to any physician or surgeon (a licentiate of the State Board of Health), or any medical college or school, public or private, of any city, town, or county, upon his or their request therefor to receive and remove free of charge or expense, after having given proper notice to relatives or guardians of the deceased, the bodies of such deceased persons to be buried at public expense, to be by him or them used within the State for advancement of medical science, preference being given to medical colleges or schools, public or private; said bodies to be distributed to and among the same equitably, the number assigned to each being in proportion to the students of each college or school;

Provided, however, that if any person claiming to be and satisfying the proper authorities that he is kindred to the deceased shall ask to have the body for burial, it shall be surrendered for interment; *and provided further*, that any medical college or school, public and private, or any officers of the same, that shall receive the bodies of the deceased persons for the purpose of scientific study, under the provisions of this Act, shall furnish the same to students of medicine and surgery, who may be under their instruction, at a price not exceeding the sum of five dollars for each and every such deceased body so furnished.

II. A sufficient bond that the body or bodies shall be used only for the promotion of medical science within the State must be given, and whosoever shall sell or buy any such body or bodies, or shall traffic in the same, shall be deemed guilty of a misdemeanor, and be subject to fine and imprisonment.

III. The penalty for the officer refusing to deliver the body, etc., is fixed at $50 to $100 for first offence; $100 to $500 for second offence; $500 or more, or imprisonment for six to twelve months, for third offence.

IV. It is the duty of those who receive bodies, to bury or cremate the remains of all bodies after they have answered the purpose of medical science.

V. "An Act to promote the science of medicine and surgery in the State of Illinois," approved 16th February, 1874, in force 1st July, 1874, is hereby repealed (Hurd's Revised Statutes, 1883, pp. 745-746).

The county board, at its session, Monday, 20th July, 1885, issued instructions to the wardens of the county hospital, poor-house, and insane asylum, and to the coroner and county physician, to turn over the unclaimed bodies to any physician, representing a medical college, who would file a bond for $10,000.

The strenuous struggle between the medical men of Chicago and the members of the county board for the possession of the pauper dead has thus been terminated.

APPOINTMENT.—Dr. John E. Owens (Jefferson, 1862) has been elected one of the consulting surgeons to Michael Reese Hospital.

WASHINGTON.

(*From our Special Correspondent.*)

THE NEW ARMY MEDICAL MUSEUM AND LIBRARY BUILDINGS.—Bids were opened at the office of Col. Thomas L. Casey, on Friday, the 7th instant, for the erection of a fire-proof building for the Army Medical Museum and Library. The following were the bidders and total amounts bid, including the heating apparatus: D. C. Weeks & Son, New York, $233,637; Frank Baldwin, Washington, D. C., $185,490; Bright & Humphrey, Washington, D. C., $179,987; August Getz & Co., Washington, D. C., $194,000; M. A. McGowan, Washington, D. C., $182,540.17; C. A. Schneider & Sons, Washington, D. C., $198,405.33; D. J. McCartney & Co., Washton, D. C., $200,595; J. F. McDermott, Washington, D. C., $191,600.

CHICAGO PHYSICIANS AND THE NEW ORGANIZATION OF THE CONGRESS.—Believing that the American Medical Association, at its late meeting in New Orleans, took such action with reference to its Committee appointed one year before, to unite, arrange for, and organize the ninth International Medical Congress, as to nullify in part the work performed by said Committee, thereby jeopardizing the success of the proposed Congress, and putting the medical profession of this country in a false and unfavorable light, the undersigned disapprove of this action of the Association, and decline to serve in the positions to which they have been appointed in the Congress as at present organized.

A. Reeves Jackson, N. Senn,
Henry M. Lyman, Charles T. Parker,
James Nevins Hyde.

CHARLESTON PHYSICIANS AND THE NEW ORGANIZATION.—The undersigned, for reasons connected with the changed circumstances in the organization of the proposed International Congress, since their appointment in the several Sections, hereby respectfully withdraw their names.

Middleton Michel,
F. Peyre Porcher,
Francis L. Parker.

OTHER RESIGNATIONS FROM THE NEW ORGANIZATION.—We are informed that Dr. Edwin M. Snow, of Providence, has declined the Vice-Presidency of the Section of Collective Investigation, Nomenclature, and Vital Statistics, and that Dr. D. Bryson Delavan, of New York, has declined the secretaryship of the Section of Laryngology.

Dr. Thomas F. Wood, of Wilmington, N. C., has declined to serve on the Council of the Section of Practical and Experimental Therapeutics; likewise Drs. J. Rufus Tryon, U. S. N., and Alfred A. Woodhull, U. S. A., on the Council of the Section of Military and Naval Surgery and Medicine; and Dr. Christian Fenger on the Council of the Section of Pathology.

A GERMAN OPINION ON THE CONGRESS ORGANIZATION.—The International Medical Congress, to be held in Washington in 1887, is in great danger, if not of being totally wrecked, of at least losing those characteristics without which such gatherings would degenerate into insignificant meetings.

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We have, heretofore, pointed out that the preparations for the Congress, under the direction of the Secretary-General John S. Billings, were progressing most satisfactorily. The officers, the members of the General Committee, and of the Executive Committee, the presidents, secretaries, and councillors of Sections, appeared to us to have been selected with remarkable skill, and we missed scarcely a name which is well known and held in esteem in Europe. In addition to the great American Medical Association the regularly organized State and local medical societies, as well as those which were devoted to special subjects, were in our opinion entitled to representation.

The hopes which were based on such an arrangement as was proposed are, in an entirely incomprehensible manner, destroyed by the American Medical Association, and permanently so, unless a remedy is very speedily found.

The original committee, with Austin Flint as President and J. S. Billings as Secretary-General, proceeded in full accordance with the principles of former congresses, and in comformity with the understanding with which the Congress at Copenhagen accepted the invitation to America—to wit, that the professional status of the United States in the Congress should be represented in its entirety as a national body, which should include all medical societies and bodies with common and special aims. The American Medical Association concluded otherwise. By it the invitation was construed in a different sense, but in Copenhagen it was universally understood as coming from the profession of the United States, and so did Dr. Billings and his associates understand it.

The American Medical Association put no such interpretation upon it, and instead of feeling concern for the success of the International Medical Congress, it allowed itself to be influenced by merely selfish motives. At its meeting held this year at New Orleans, it annulled all that the committee had brought about by its remarkable energy. Secretary-General Billings warned them in vain, and explained the correct relation of the profession of the United States to the International Congress. The entire programme, prepared with so much difficulty, was thrust aside, thirty-four members added by specific authority by the original committee were stricken off, and thirty-eight new members of the committee were appointed. The ruling idea was to bring the International Congress completely under the leadership and authority of the American Medical Association, and to elect additional members of the committee; not because of their ability, but because they came from the several States and Territories. It was decided, in a word, that the Congress should be a gathering of the American Medical Association, with a somewhat greater number of foreign guests than could otherwise be invited.

The motives of those opposing the excellent original committee appeared to spring from injured ambition, which had not received recognition. They had long assumed a threatening attitude, and were anxious to reap the fruits of their underhand work.

Accordingly, an old controversy was utilized, which has divided the physicians of the United States into two factions, distinguished as the old code and the new, differing from each other in that one observes the strictest, the other a lax attitude in reference to consultations with irregular practitioners. Now, a number of the followers of the new code were selected as members of the various committees, and their opinion on the code question was held by the Association to be sufficient ground to exclude them. Whatever may be thought of the question of professional ethics in America, the American Medical Association was not justified in making this a criterion for membership in the International Medical Congress, whose whole character must always remain entirely uninfluenced by such local differences.

Because the opponents of the original committee had a majority in New Orleans, the new committee chosen was called together on the 24th of June at Chicago, and its meeting conducted in the interests of the majority. This procedure excited public opinion in the United States in the highest degree. The formal right of the American Medical Association thus to act is questionable, so that nothing remained except for the leaders of the North American profession to deny responsibility for such a procedure, and at the same time to refuse to participate therein. This was done unanimously.

The most eminent physicians of Philadelphia, Boston, and Baltimore have refused office in the new organization, and the same action is expected on the part of the physicians of other cities. Of how little real importance the code question is in this matter may be inferred from the action of the medical profession of Philadelphia, whose members are thoroughly in accord with the principles of the old code, and yet were the first to protest against the action of the American Medical Association.

Whatever may be thought of the value of international scientific and medical congresses, it is certain that the European profession this time would willingly have availed themselves of the invitation of their colleagues in the United States. This, certainly, we can affirm of Germany. As the matter now stands, one may fairly hesitate to attend, since a local result only can be attained. With many there will be little inclination to take part in a Congress to which the 40,000 physicians of the United States are not admitted, but only a small minority of them, inasmuch as the American Medical Association in all its branches numbers only 3000 members. We were well pleased to act under the leadership of Austin Flint and Billings, but we have little confidence in that of Shoemaker, who is merely known to us through his oleates. — *Deutsche medicinische Wochenschrift.*

A FRENCH OPINION ON THE CONGRESS ORGANIZATION. —We learn from the *Medical Times* that the organization of the International Medical Congress, to be held at Washington, has met with difficulties with our brothers beyond the sea. The American Medical Association does not approve of the acts of the Committee named at Copenhagen. although it contains a large majority of its own members. It desires to replace the Committee by another, chosen entirely from its own membership.

We do not wish to criticise the American Medical Association, but it is undeniable that this method of procedure is contrary to that hitherto followed in the organization of the International Medical Congresses, and, as the *Times* justly says, runs the risk of compromising the success of the International meetings in the

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future. What is not less certain, and not less serious, is, that many American members, who in this country are held in the highest esteem, are estranged from the Congress. Now, if the hope of extending the circle of our acquaintance and of forming new ties is a powerful attraction for us, we will be not the less happy to see again those whose names have been long known to us, and whom we are proud to call our friends. There is no doubt that what disaffects them will cool the ardor of their colleagues in the Old World too much to allow them to trust themselves to the uncertainties of an ocean voyage. We have hopes, however, that our American colleagues will see that the Association does not lose sight of the objects for which the International Congress was originated, and that we shall yet find at Washington a branch of the ancient tree bearing, under a new sun, fruits the more beautiful, because fertilized by fraternal love and the spirit of reconciliation.—*Le Progrès Médical.*

BRITISH OPINIONS ON THE CONGRESS ORGANIZATION.—There is something very ludicrous in the attitude of the Committee appointed by the American Medical Association, and which, on its own authority alone, presumed to undo the work already accomplished by the Committee specially appointed by the Congress at Copenhagen. The former self-constituted body has deposed the well-known and respected physicians elected by the latter to preside in the various Sections, many of whose names are of world-wide renown, and replaced them by a long string of nonentities, scarcely one of whom has ever been heard of outside the village in which he gains a living. The few celebrated physicians who were graciously permitted to retain official posts have naturally and properly shown their disgust by declining to be associated with the strangely mixed representatives of American medical science who are elevated into notoriety by the action of the Association ring; and things are now at such a pass that even the home journals are reckoning up the meeting as certain to be a miserable failure. The more sensible organs, however, are tendering the male-contents a piece of advice which they will do well to act upon, namely, that at their next meeting they should quietly determine their official existence, and resign the organization of the Congress to men of standing in the profession, and who will be able to command confidence and respect on this side of the Atlantic. Unless some definite action of this kind is speedily taken, it is a moral certainty that the Congress, if persisted in, will lose every atom of its international character; for no one is going to contribute papers, or be at the expense of reading them to an assembly of mutual admirationists, whose meddlesome conceit is scarcely equalled by their obscurity in the world of medicine. We have still, however, sufficient faith in the good sense of our American *confrères* as a whole, to feel assured that the little band of nobodies will speedily be sent to the rightabout, and the direction of the arrangements reassumed by the men who ought never to have resigned the trust reposed in them.—*Dublin Medical Press.*

The Boston Medical and Surgical Journal publishes the following letter from Sir William MacCormac, Secretary-General of the London Congress of 1881:

"I have seen in medical papers, and heard through private sources, that a serious disagreement has occurred in respect to the organization of the ensuing International Congress in Washington. A few of those who had been concerned in organizing the London Congress, recently met to talk the matter over, for we feel that any failure which might attend the Congress in the United States would be little short of a professional disaster. I do not myself think, and most here would share my opinion, that a congress from whose ranks some of your best physicians and surgeons have determined to withdraw, and whose members are to be further restricted to such as belong either directly or by affiliation to one medical body in America, would be likely to be attended by many colleagues from this country.

"Speaking from personal knowledge, an International Congress cannot be a success, unless taken up in the warmest and most self-sacrificing manner by all the principal men in the country where it is to be held. I was present at the meeting in Copenhagen, where the invitation to meet in America in 1887 was given, and after some discussion accepted. I am sure it was present to the mind of every one there, that the invitation was one from the profession of America, and not from any section of it, or any particular medical society in it. Otherwise I feel pretty certain Professor Virchow's invitation to meet on the next occasion in Berlin would have been accepted.

"Even now, it would appear to me wiser to have that invitation renewed, or to meet in some other place than to have a meeting in America, from which, so far as we may at present judge, many of the chief men on both sides of the Atlantic would absent themselves."

AMERICAN OPINIONS ON THE CONGRESS ORGANIZATION.—Place the blame where we may, either with the original committee, the American Medical Association, the new committee, or the disaffected members of the profession throughout the United States, we can but acknowledge that the arrangements for the meeting of the International Medical Congress are, upon the whole, in a very bad fix; that the prospect for a successful Congress is very much threatened; and that the medical profession of the United States does not present a very enviable aspect to the outside world.—*Texas Courier-Record of Medicine.*

Died of an overdose of reconstruction! A good epitaph for a dead Congress.—*Louisville Medical News.*

THE ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION was held at Cardiff on the 28th, 29th, 30th, and 31st of July, under the Presidency of Dr. W. T. Edwards, of Cardiff.

Dr. W. Roberts, of Manchester, delivered the Address in Therapeutics, which was largely devoted to the consideration of questions of diet in disease. After referring at some length to the food customs of Great Britain, and their effects on different constitutions, Dr. Roberts continued: "In a considerable number of conditions, our patients are unable to take solid food, and are reduced to the necessity of using food which can be administered in the liquid form. This is usually the case in the febrile state and in serious organic disease, especially of the abdominal organs, and in the terminal stages of almost all diseases. There are other conditions in which, although the patient may have the ability to take solid

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food, it is not desirable that such food should be administered to him. In narrowing of the pylorus or other part of the digestive tract, in ulceration of the intestinal mucous membrane, it is obviously undesirable to administer articles of food which are capable of forming lumps or masses which may block up the narrowed parts of the intestinal tube, or irritate the ulcerated surfaces. There is thus a large field for the employment of liquid food; and one of the most embarrassing tasks in clinical dietetics is to devise food in this form in sufficient change and variety, and having at the same time an adequate nutritive value. Our resources in this state of things consist of milk, beef-tea, and other meat decoctions, cold-made meat infusions, raw eggs, and the various gruels." He then spoke of the dietetic values of milk, beef-tea, and other meat decoctions, eggs, fortified gruels, and concluded as follows: "A matter of interest, in designing food for the sick-room and nursery, is the consideration of the special properties of the several kinds of cereal and leguminous substances used as food. In point of chemical composition, the several kinds of cereal grains are closely allied; still there are differences between them, and these differences may be of importance. The proteid of wheat is not quite identical with that of oats or barley. On the other hand, leguminous seeds differ importantly in composition from the cereal grains. Taking the lentil as a type of the leguminous group, it is to be observed that lentil flour contains twice as much proteid matter as wheat or oat flour, and almost twice as much lime. Moreover, the proteid of the leguminous seeds differs materially from that of wheat or oats. These differences are probably of not a little importance in feeding the sick and the young; and, if we had more knowledge and experience in their use, we could, perhaps, utilize with advantage these several cereal and leguminous products, and combine them in varied ways to meet the indications and necessities of different cases.

The invitation to hold the meeting of 1886 at Brighton was accepted, and Dr. Withers Moore, of Brighton, was chosen President-elect.—*The Lancet*, August 1, 1885.

GOOD HEALTH RESULTS FROM SANITARY WORK.—Sanitary authorities have claimed that the sanitary work which they have recommended to be done as a preparation for cholera—such as preventing and abating nuisances, attending to drains, sewers, privies, and cesspools, cleaning up generally, and unusual carefulness in regard to foods and drinks—would reduce the sickness and deaths from other diseases, even if cholera did not come. The weekly reports for July, 1885, to the Michigan State Board of Health by physicians in different parts of the State, indicate that this claim is being realized in Michigan, so far as relates to lessened sickness—it having been lessened from nearly every disease, and greatly lessened from fevers and from diarrhœa, and other diseases believed to be especially influenced by sanitary conditions; and this is true, notwithstanding the meteorological conditions in that month were rather more than usually unfavorable to health. It is proper to state, however, that the sickness in any month is influenced by the meteorological conditions in the preceding month, and that the meteorological conditions in June, 1885, were unfavorable to health.

Observations in Michigan for many years have shown that, in July, the meteorological conditions especially unfavorable to health are: High temperature, excessive humidity of the atmosphere, and deficiency of ozone. The bulletin of *Health in Michigan*, July, 1885, says: "For the month of July, 1885, compared with the average of corresponding months for the seven years—1879–1885—the temperature was slightly higher, the absolute and the relative humidity were more, and the day and the night ozone were less.

"Compared with the average for the months of July, in the seven years—1879–1885—remittent fever, intermittent fever, dysentery, consumption of lungs, cholera infantum, diarrhœa, cholera morbus, measles, and whooping-cough were less prevalent in July, 1885."

A large part of this decrease in sickness has undoubtedly been due to the medical and sanitary journals and the newspapers, which have constantly kept before the people the necessity for sanitary work, and the facts as to the spread of cholera in Europe.

It remains to be seen to what extent efforts for the exclusion of cholera from this country, and the general preparation for cholera, by boards of health and the people, shall prove effectual; but, even if cholera shall not be entirely prevented, there will remain the belief that the measures which have so greatly decreased the sickness from other diseases cannot but have had their influence in decreasing it; and, if cholera does not occur in this country, it proves quite probable that, by reason of the suffering elsewhere, there may be as many cases of serious sickness prevented in this country as there have been cases of cholera in Europe. But this may not continue without continued vigilance and effort.

INSPECTION OF EMIGRANTS.—From reports received by the Marine-Hospital Service, it appears that the sanitary inspectors are more vigilant than ever before. Many emigrants are returned to the shore for lack of proper papers; and, in cases where they have come from infected districts, they are detained, and their baggage thoroughly disinfected, after which they are allowed to sail. No objection has been made to the practice by any foreign power, except France; and, notwithstanding her objections, since the recent outbreak of cholera was reported from Marseilles, the inspection at Havre was recognized.

ABOUT VESSELS FROM INFECTED PORTS ARRIVING AT PHILADELPHIA.—The following resolution was adopted this week by the Board of Health of Philadelphia:

Resolved, That all incoming vessels bound for the port of Philadelphia, from ports infected, or which may hereafter become so, including at present the Mediterranean and Portuguese Ports, and also all vessels which have or have had sickness on board since leaving the port of departure, shall be required to report at the United States Quarantine Station at the Delaware Breakwater, and that all pilots in charge of such vessels be and are hereby required to obey this order, under penalty of the law, before bringing such vessels into the Philadelphia Quarantine Station on the Delaware River.

YELLOW FEVER AT VERA CRUZ.—Vera Cruz is again suffering from yellow fever in an aggravated form. The

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consul at that port applied to the State Department for an inspector; but, inasmuch as the fact is generally known that Vera Cruz is afflicted with yellow fever, health officers throughout the country view with suspicion all vessels arriving from that port, and treat them accordingly.

SMALLPOX EPIDEMIC IN MONTREAL.—The President of the Board of Health of Montreal has declared that smallpox is epidemic in that city. The City Hospital contains thirty-six patients, and a new wing is in progress of erection which will hold fifty more patients. It is not known how many are suffering from the disease in private dwellings.

The State Department has transmitted to the Secretary of the Treasury a communication from the Governor of Michigan to the effect that smallpox is prevailing to an alarming extent at Montreal, and suggesting that measures be taken immediately to prevent its introduction into the United States.

THE AMERICAN DERMATOLOGICAL SOCIETY will hold its ninth annual meeting under the Presidency of Doctor William A. Hardaway, of St. Louis, at Greenwich, Connecticut, on Tuesday, September 1st.

HONORS TO SIR JAMES PAGET.—The Royal College of Surgeons of England, at its meeting held on August 6, by a unanimous vote, in view of his many important services to the College, requested Sir James Paget to sit for a marble bust, to be executed at the expense of the College, and to be placed in some suitable position in the College buildings.

Mr. Hutchinson then gave notice of motion:

"That a committee be appointed to consider the practicability of adding a clinical wing to the Hunterian Museum, to be associated with the name of Paget, and to have for its especial, but not exclusive, object the display of casts, photographs, drawings, etc., illustrating the results of disease and injury in the living subject."

DR. GUSTAV BURGE has been invited to the Chair of Physiological Chemistry at the University of Basle.

NOTES AND QUERIES.

MERCURIAL TABLETS.

To the Editor of THE MEDICAL NEWS.

SIR: Permit me to call attention to the improved form of the mercurial tablets described in THE MEDICAL NEWS of December 27, 1884. They were first made without color, containing 7.3 grs. hydrarg. chlor. corros., and 7.7 grs. ammonium chlor., merely arbitrary quantities adopted for convenience in making solutions of a standard strength and of given quantity. As the tablets were similar in form and color to the ordinary tablets composed of innocuous preparations now so much in vogue, it was deemed best, on account of the dangerous character of these tablets, to give them a specific color, as an additional safeguard against possible accidents through carelessness in their use. This has been accomplished by the addition of one-fiftieth of a grain of C. P. green aniline. When the tablet is dissolved, this gives the solution a dark-green color. The chemical qualities are not altered by the addition of the aniline, and it does not interfere with the germicide power of the mercuric chloride. Aniline as a coloring matter is to be preferred to permanganate of potassa because it gives a more stable color. The latter resembles in color many harmless drugs, whilst the green color of the former serves as a danger signal to professional gentlemen and the laity alike.

Yours respectfully,

CHARLES MEIGS WILSON.

1517 WALNUT STREET, August 18, 1885.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, FROM AUGUST 11, 1885, TO AUGUST 17, 1885.

CAMPBELL, JOHN, *Colonel and Surgeon.*—Granted leave of absence for one month.—*S. O. 184, A. G. O.*, August 13, 1885.

IVES, FRANCIS J., *First Lieutenant and Assistant Surgeon* (recently appointed).—Ordered for duty in Department of the Platte.—*S. O. 184, A. G. O.*, August 13, 1885.

WOLVERTON, W. D., *Major and Surgeon.*—Granted leave of absence for twenty days.—*Washington Barracks, D. C., S. O. 171 Department of the East*, August 14, 1885.

MAUS, L. M., *Captain and Assistant Surgeon.*—In addition to his other duties, assigned to duty as Attending Surgeon of the Department Rifle Camp.—*S. O. 83, Department of Dakota*, August 3, 1885.

CHAPIN, A. R., *First Lieutenant and Assistant Surgeon.*—Granted one month's leave, to take effect when services can be spared by Commanding General of Department of Missouri, with permission to apply for one month's extension.—*S. O. 179, A. G. O.*, August 6, 1885.

WALES, PHILIP G., *First Lieutenant and Assistant Surgeon* (Fort Cœur d'Alene, Idaho).—Ordered for temporary duty at Boise Barracks, Idaho.—*S. O. 130, Department of Colorado*, August 1, 1885.

APPOINTMENT.

KENDALL, WILLIAM P.—To be Assistant Surgeon U. S. Army, with the rank of First Lieutenant, to date from August 12, 1885.—*S. G. 181, A. G. O.*, Aug. 10, 1885.

AZFULL, THOMAS F., *Captain and Assistant Surgeon.*—Retired from active service August 10, 1885.—*S. O. 191, A. G. O.*, Aug. 10, 1885.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY DURING THE WEEK ENDING AUGUST 15, 1885.

BEYER, H. G., *Passed Assistant Surgeon.*—To attend meeting of the American Association for Advancement of Sciences at Ann Harbor, Michigan, and at conclusion of meeting to resume duty at the Smithsonian Institute.

BOYD, JOHN C., *Passed Assistant Surgeon.*—From navy yard, Washington, D. C., to special duty at Bureau of Medicine and Surgery, Washington, Navy Department.

LIPPINCOTT, J. C., *Passed Assistant Surgeon.*—To navy yard, Washington, D. C., as relief of Passed Assistant Surgeon Boyd.

OWENS, THOMAS, *Assistant Surgeon.*—From special duty at Bureau of Medicine and Surgery, Navy Department, and waiting orders.

SAYRE, J. S., *Assistant Surgeon.*—From U. S. R. S. "Independence" to Naval Hospital, Mare Island, California.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE-HOSPITAL SERVICE, FOR THE TWO WEEKS ENDING AUGUST 15, 1885.

BAILHACHE, P. H., *Surgeon.*—To proceed to Delaware Breakwater Quarantine as Inspector, August 15, 1885.

STONER, GEORGE W., *Surgeon.*—Granted leave of absence for thirty days, August 10, 1885.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLVII. SATURDAY, AUGUST 29, 1885. No. 9

ORIGINAL LECTURES.

ON THE OPERATION FOR STRANGULATED HERNIA.

BY PROFESSOR VERNEUIL.

A Clinical Lecture delivered at the Hopital de la Pitié, July 6, 1885.

(Reported by W. W. SKINNER, M.D., EXTERNE DE HOPITAUX.)

I WISH to speak to you to-day, gentlemen, upon the appreciation of the opportunity for operating in cases of strangulated hernia. The patient you have just seen in one of the wards, and who has recently undergone the operation of kelotomy, furnishes me a fitting occasion to present to you this subject.

If the strangulation of the hernia be sometimes difficult to diagnosticate, there are other occasions in which doubt is not permissible, and the presence of a constriction is most evident. Even in these cases the indications and contraindications of operation are often difficult to seize. Nothing was more doubtful, formerly; but, thanks to the definite rules resulting from the experience of surgeons of our epoch, nothing is clearer to-day.

No longer than twenty years ago, before the indications for the operation were clearly enunciated, and before such treatment of the operation-wound was practised as is done at present, the mortality after operations was considerable. When I was surgeon at the Hôtel-Dieu I was frightened at the great proportion of the resulting deaths. One-half of the cases were fatal.

The principal causes of this fearful mortality may be reduced to three: 1st, the inordinate and ill-timed employment of *taxis;* 2d, *absurd therapeutics;* and 3d, *tardiness* in operating, because every lesion of the peritoneum is fraught with more or less danger; and, when this lesion is made on an inflamed or damaged peritoneum, the results are far more fatal.

In principle, I am not opposed to taxis, properly performed at the proper time; but taxis, practised beyond all reason, is an injurious manœuvre. On the contrary, it is very frequently efficacious when performed at a seasonable time. It is also extremely essential that taxis be *intelligently* performed. Some surgeons imagine that, by pushing very hard upon the hernia, they can cause its reduction. That, however, is a most detestable practice, and the dangers to which the patient is thereby exposed are formidable. Among these dangers may be named the rupture of the intestines, and the reduction of the hernia *en masse*. If taxis, exercised with moderate force, does not succeed, that method of reduction should be abandoned.

Secondly, an absurd treatment is often the cause of want of success in the subsequent operation. The patient is frequently made to swallow warm infusions, in the hope of causing the hernia to disappear. He is repeatedly purged, or aromatic frictions are prescribed, or he is subjected to enemata of tobacco, and other ineffectual means, which cost the patient loss of time and strength.

Finally, after having vainly tried this medical treatment, the services of the surgeon are at last requested, the patient being *in extremis*. But, notwithstanding the best directed efforts of the most skilled operators, the results in these conditions are too often fatal. His attempts are struck with inutility. In some cases, however, a rare success crowns the operation. If the surgeon does not deem it advisable to operate, he should prescribe opium, belladonna, and ice. Patients have been put in great danger by operations performed inopportunely.

Why, therefore, so much delay? It is easy to understand that in former times, when the operation was followed by death in fifty per cent. of the cases, there was much reason for hesitation before exposing the sufferer to a new danger, but since that time kelotomy has become a benign operation. It has even become an elective process. It goes without saying that the operation should be performed under the best conditions, according to the rules of modern surgeons and the principles of antisepsis. I would prefer a puncture of the bladder, or an internal urethrotomy, to a catheterism badly done. So, kelotomy, if done unskilfully, and without proper precaution, is an exceedingly dangerous operation.

The patient in our ward has carried a left inguinal hernia during eighteen years. It was an antero-epiplocele; that is to say, a tumor formed by a loop of intestine and a portion of the greater omentum protruding outside of the abdominal cavity. It is necessary that you should know that the presence of the omentum is an advantage in a hernia. It prevents too great a pressure upon the intestine by interposing its mass between this viscus and the hernial sac, and thus permits greater mobility of the engaged intestine. On the other hand, the presence of the epiploon is an obstacle to the easy reduction of the hernia; and in this case it is of the highest importance that the surgeon should be endowed with the *doigt chirurgical*, in order to be able to decide by the touch in which part of the tumor is the intestine, so that taxis may be intelligently and usefully applied.

In the present case taxis was unsuccessfully tried, and it became necessary to open the sac; after which the stricture was divided, and the intestine and walls of the sac washed with antiseptic solutions. The loop of intestine was then returned to the abdominal cavity, while the omentum was excised, and the bleeding vessels tied with carbolized catgut.

A question naturally arises here concerning the surgeon's conduct in cases of antero-epiplocele, which he has decided to operate. Shall the portion of omentum in the hernia be returned with the intestine, or shall it be resected? Permit me to lay before you the rules which guide me in such circumstances. If the strangu-

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lation has existed for a few hours only, twelve hours at the utmost, I reduce the omentum as well as the intestine, especially if the protruding part be in a fair state, yellow, uncongested, and, above all, if it be small; otherwise I never reduce it, but tie the constricted part and resect. If the pedicle is small, tie it in mass with one ligature; if it is large and thick, divide the pedicle in several parts by as many ligatures. The material of which these ligatures should be composed is not indifferent, and, although I do not employ catgut very much, yet it is here necessary, as it is absorbed after being left in the abdominal cavity.

What is to be done with the sac? If its extirpation is not too difficult it may be attempted, the freshened surfaces being brought together and securely sutured. Further, it has been said that this method prevents the reproduction of the hernia in the same place. But too much has been spoken and written about the radical cure of hernia, and operations designed for this purpose have most often failed. My treatment of the incision is very simple; I have always succeeded well in leaving the wound open, but dressed very carefully, with every attention paid to antisepsis. I place upon the wound a piece of collodionized goldbeater's skin, under which the serosity escapes. Over this are laid several thicknesses of gauze, containing powdered iodoform, or else dipped in a solution of carbolic acid. A light impervious tissue, and a bandage well applied, complete the dressing.

The treatment of hernia may be thus announced *en résumé*. Attempts at reduction by taxis during the first twenty-four hours after strangulation. Warm baths and chloroform are useful adjuvants. Later than this, the bistoury. The operation should be performed, and the after-treatment conducted according to the best antiseptic principles. If there is a suspicion of gangrene of the intestine, leave it outside of the abdominal cavity; but, when it is in a good state, replace it. Reunite the serous walls of the sac, and upon the open wound place a flat dressing, similar to the one I have described.

One word, gentlemen, concerning a case of hernial abscess, before operating upon it. The patient is a student of medicine, who presents an acute abscess near the margin of the anus on the left side. The abscess has already burst several days ago; but pain, redness, and swelling still persist, and the healing is no further advanced than when the pus was first discharged. When you have an acute abscess in this region, let me advise you to perform immediately the operation for *fistula in ano*. Sometimes, it is true, ordinary dressings and a treatment less active suffice; but, generally, you will be obliged to have recourse to the above-mentioned operation, which should be performed early, as it is useless to let your patient suffer for weeks, and finally be forced to undergo the radical treatment after all.

[Professor Verneuil then caused the patient to be chloroformed. Anæsthesia being complete, the nates of the patient were drawn to the edge of the table, and he was held by aids in the position for lithotomy. The Professor then passed a grooved director into the opening at the summit of the abscess, pierced the rectum, and brought the end of the instrument out at the anus. The tissues lying upon the director were then divided by Paquelin's thermo-cautery, and a carbolized dressing applied.]

ORIGINAL ARTICLES.

THE KOCH COMMA-BACILLUS AND ITS RELATION TO ASIATIC CHOLERA.

BY HERMANN M. BIGGS, M.D.,
INSTRUCTOR IN THE CARNEGIE LABORATORY, N. Y.

ALTHOUGH many articles have appeared within the last few months, in the different American medical journals, on the subject of cholera, there are some important points with regard to the comma-bacillus and its relation to the disease that have not been clearly brought out, and the present status of the cholera bacillus has not been defined in any of the recent papers on this subject. During the last few months the writer has given considerable time and attention to the cultivation and study of three of the comma-bacilli, and this together with the facts mentioned above have been considered a sufficient excuse for the presentation of the present article.

The interest aroused in this subject among medical men by the announcement of Koch, and the outbreak of the disease in Europe attracted many investigators to the study of the cholera bacillus, and many contributions have been made to our knowledge of the etiology of the disease. But the results reached by different observers on the same questions have in many cases been directly contradictory to each other on every important point, so that much confusion has resulted.

It is necessary, in the first place, to understand clearly Koch's conclusions as to the comma-bacillus described by him.

These are briefly as follows:

1. Peculiar microörganisms are found in the mucous flakes and rice-water discharges of all persons suffering from Asiatic cholera, which from their peculiar form Koch calls "comma-bacilli."

2. These bacilli are about ½ or at most ⅔ the length of the well-known tubercle bacillus, and are of about the same thickness. They are very active in their movements, are always more or less curved, and vary in length according to the state of their growth. They occur singly or in pairs, and sometimes form longer or shorter wavy lines composed of many individuals.

3. These comma-bacilli are found post mortem almost as pure cultures in the lower part of the ileum, to the exclusion of other microörganisms. They also occur in the mucous membrane of the ileum, especially in the vicinity of the lymph glands and lymph follicles.

4. They bear a constant relation to the course and severity of the disease in each case, and disappear with the cessation of the acute processes.

5. In typical and rapid cases the mucous membrane of the lower part of the ileum exhibits characteristic alterations, *i. e.* loosening and detachment of the epithelium, and swelling and congestion of the bloodvessels, often accompanied by extravasation of blood into the tissue. It is probable that these lesions are caused by the penetration, growth, and multiplication of the comma-bacilli in these tissues, and that the morbid processes constituting the disease are brought about by the production by these germs of a

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special chemical poison, and its absorption by the system.

6. No microörganisms are found in the blood or other tissues.

7. These germs grow well in ordinary neutral and slightly alkaline culture media at the temperature of the room, and show certain peculiarities of growth in different culture media, by which they can with certainty be distinguished from all other germs.

8. The comma-bacilli are killed by acids, by drying, and by various antiseptics. They also soon disappear from a fluid which contains putrefactive microörganisms.

9. Because of their constant occurrence in the intestines of cholera patients, their absence under all other conditions, and the ease with which their presence can be determined, by the peculiar manner of growth and development of the colonies in different culture media, together with certain other characteristics, Koch claims for these comma-bacilli great *diagnostic* value, and an essential *causal* relation to Asiatic cholera.

It is necessary that the morphological and biological peculiarities of this germ should be carefully studied, since it is largely upon these grounds that the assumption rests of the causal relation of the germ to the disease. Of those peculiarities especially worthy of note, the following are the most characteristic. The comma-bacilli are less straight than other bacilli, and are a little curved, similar to a comma. The curving may extend so far that the rod assumes almost the form of a half circle. In pure cultures the rods sometimes present an S-form figure or the form of longer or shorter wavy lines. The S-forms are made up of two individuals, the lines of a large number of bacilli. They are aërobic, requiring the presence of air for their development.

Their growth in nutrient gelatine[1] is peculiarly characteristic. In this the comma-bacilli form colorless colonies, which are at first circumscribed and appear as if formed of strongly refracting bits of broken glass. They liquefy the gelatine. From the peculiar appearances of the colonies in different culture media, they can with certainty be distinguished from all other germs, and can be easily isolated.

In the report of the German Cholera Commission from India, Koch says "in the contents of the intestines of a large number of persons dead of cholera and in the stools of many others sick with the disease, these bacilli have been found in every case. In the intestines of many other persons suffering from or dead of diarrhœa, dysentery, etc., which have been examined, they have never been found, nor do they occur in the stools of healthy persons or those caring for cholera patients or under any other condition. These observations are entirely confirmatory of many similar ones made in Egypt, and from them it is concluded that this comma-bacillus is quite characteristic of and peculiar to cholera."

"That this is, in fact, the case, also, other circumstances go to prove in a most unmistakable manner. First of all, stands the relation of the bacilli to the progress of the disease. They are only found in that organ which is the seat of the disease; namely, the intestine. In the vomited matters only twice have they been detected, and in both these cases the appearances and the alkaline reaction of the vomited matters showed that the bacteria with the contents of the intestines had passed into the stomach. In the intestines they deposit themselves in the following manner: Only few cholera bacilli are found in the first evacuations from the intestines, while they still have a feculent character; but in the watery odorless dejections that follow, the bacilli are present in larger numbers, while at the same time all other bacteria almost entirely disappear, so that in this stage of the disease nearly pure cultures of the comma-bacilli are found in the intestines. As soon as the dejections become again feculent in character, the cholera germs entirely disappear, and after the disappearance of the disease are not to be found at all. The comma-bacilli do not appear in the stomach. The conditions found in the intestine post mortem depend upon the stage of the disease at which death occurs. In the freshest cases in which the intestines present a diffused bright-red color the mucous membrane is still free from hemorrhages, and the contents of the intestines consist of a whitish odorless fluid. In this, almost pure cultures of the cholera germ are found in enormous numbers. The extent of their diffusion corresponds very closely to the intensity and extent of the inflammation of the intestinal mucous membrane. In the upper part of the small intestine there are but few, and they increase in number as the lower part is reached. When death occurs later in the course of the disease, lesions of a significant character are found. The mucous membrane of the small intestines is of a dark-red color, and in its lower portion are found extensive extravasations of blood, and often the superficial layer is necrosed. The contents of the intestine are more or less colored with blood and of putrid and stinking character, owing to the reappearance of bacteria of putrefaction. In this stage the comma-bacilli always diminish greatly in number, but they are found in moderately large quantities in the follicles of Lieberkühn and in their surroundings. This condition, namely, the presence of this peculiar bacteria in the walls of the intestines, was first observed in the Egyptian cholera cases. The comma-bacilli are only completely wanting in the intestines in those cases when death occurs from the supervention of some other disease after the cholera affection has entirely disappeared."

The cholera bacilli conduct themselves as all other pathogenic organisms. They are present exclusively in their own specific disease, and their first appearance coincides with the commencement of the disease. They increase in numbers in proportion to the development in the disease processes and disappear again with their decline. Their situation corresponds to the extent of the lesions found post-mortem, and their numbers bear so significant a relation to the intensity of the affection, that the destructive lesions of the intestinal mucous membrane are through this explained.

[1] Nutrient gelatine is the culture medium most generally useful. It is composed essentially of beef bouillon to which from 1 to 2 per cent. peptone is added, and sufficient gelatine (5 to 10 per cent.) to make it solid.

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In order to demonstrate the causal relation of the germ to the disease, it is further exceedingly desirable that cholera should be produced artificially in some animals, by the introduction of pure cultures of the bacilli into the intestinal canal. This has been done, but the results have not been altogether satisfactory. The experiments will be given more in detail later in the course of this paper.

There are other peculiarities of this germ which are in harmony with what is known of the etiology of cholera, and serve to strengthen the conclusion that these bacilli are the cause of cholera. Especially worthy of note is the observation that the bacilli are found to have increased in enormous numbers on the clothing of cholera patients which has been soiled by the dejecta, and has been kept in a moist condition for twenty-four hours. This observation affords an explanation for the well-known fact that the clothing from cholera patients is so often the source of infection.

Another important peculiarity is, that the germs are found to be quickly killed by drying. Ordinarily, remaining three hours in a dried condition is sufficient to destroy completely all life. Further, their growth only occurs in neutral or alkaline media. They are killed by acids in weak solution, and the presence of the smallest quantity will entirely prevent their development. They are destroyed in the normal stomach, and are not found either in the stomach or intestines of animals fed upon material containing cholera bacilli. This last peculiarity together with their slight resistance to drying, affords an explanation of the daily observation, that infection so seldom follows direct contact with the sick. In order to produce cholera the bacilli must pass through the stomach unharmed and find their way into the intestines. It is probable that the bacilli can pass through the stomach unaffected if the stomach digestion is disordered. Certain facts observed in all cholera epidemics, and especially in India, seem to favor this view. It has been repeatedly noted, that very often those persons contract the disease who are suffering from indigestion or some disorder of the alimentary canal.

These comma-bacilli, moreover, are easily destroyed by putrefactive microörganisms, and if placed in fluids containing decomposing organic matter, have entirely disappeared after from twenty-four to forty-eight hours. Under the most favorable conditions they live but comparatively a short time in the human alimentary canal, and have, as a rule, entirely disappeared after six days from the commencement of the disease.

Since Koch's announcement, three important comma-bacilli have been described, all of which resemble so closely the Koch comma-bacillus in their morphological appearances, that they can only with difficulty be distinguished from it on these grounds alone.

Much confusion has arisen and is constantly arising from the want of sufficient recognition on the part of many observers, of the fact, that similarity in morphological appearances does not by any means prove the identity of two germs. To establish this, it is quite as essential that there should be a similarity in the growth and development of the colonies in different culture media, and also an identity in function. Owing to a neglect to recognize sufficiently this fact, much of the work of the English Cholera Commission has been rendered practically valueless.

The first of these three comma-bacilli was discovered by Finkler and Pryor, of Bonn, in the stools of a person suffering from simple or sporadic cholera. This bacillus they isolated and cultivated in different culture media, and stated that it was identical with the comma-bacillus described by Koch. Cultures of this microbe were finally sent by them to Koch, and in his reply to their claims, he held that their cultures were impure, and contained four distinct forms of bacteria. Two of these which are unimportant, are respectively known as the "figure bacillus of Finkler and Pryor," and the "green Finkler and Pryor." The third one, known as the "comma-bacillus of Finkler and Pryor," resembles very closely the Koch comma-bacillus in its morphological appearances, but is a little thicker and larger, and can be readily distinguished from it by the appearance of the colonies in different culture media.

Shortly preceding the communication from Finkler and Pryor, came the announcement almost simultaneously from Prof. Miller, of Berlin, and Lewis, of London, of the discovery of a comma-bacillus on the teeth, and in the mucus of the normal human mouth. It has been impossible to isolate this germ[1] from the fact that it will not grow in any of the ordinary culture media. In February, 1885, Prof. Miller, of Berlin, isolated a comma-bacillus from the mouths of two persons who were suffering from dental caries, but this, which was at first supposed to be the germ ordinarily found there, is probably another form and may be identical with the Finkler and Pryor comma.

The third comma-bacillus was described by Dr. Deneke, in January, 1885. This was found by him in stale cheese, and perhaps resembles more closely the Koch comma than either the Finkler and Pryor or the mouth comma. Still, Deneke concludes that it is quite distinct from it.

The greatest interest naturally centres in the Finkler and Pryor and the mouth commas, since, as these are both found in the alimentary canal under other conditions than with the existence of cholera, if the identity of either of them with the Koch comma-bacillus can be proven, Koch's conclusions will be completely invalidated. This has not been done, but, on the other hand, they have been proven to be very different from the latter.

As to the points of difference between the Finkler and Pryor and the Koch comma-bacilli, it must be admitted that in preparations mounted in Canada balsam, the similarity between the two germs is very great, but in preparations freshly stained and mounted in water, with the same magnifying power, the Finkler and Pryor comma appears somewhat larger and plumper. The differences shown in the growth and development of the colonies in different culture media are very great. Under the same con-

[1] Klein claims to have isolated the comma-bacillus of the mouth by using a slightly acid gelatine. Other observers have not been so successful, and his statement remains, as yet, unconfirmed.

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ditions of life, *i. e.*, the same temperature and culture medium, the growth of the Finkler and Pryor comma is much more rapid than that of the Koch comma. In gelatine plate cultures[1] the single colonies of the Finkler and Pryor comma, especially during the first twenty-four hours of its growth, have a yellow-brown color, are always of a regular, round, sharp-bordered form, and present with the low and middle magnifying power, a fine granulated appearance. They rapidly liquefy the gelatine, so that after twenty-four or thirty-six hours the colonies have sunk deep into the layer of gelatine on the culture plate, and have surrounded themselves with a wide zone of the fluid medium. They produce in their growth a very foul and penetrating odor. After thirty-six or forty-eight hours, the colonies lose their circumscribed sharp bordered character and assume an irregular bushy form. So great is the tendency to liquefy the gelatine in wide areas around the individual colonies, that after the second day gelatine plate cultures, which contain but few colonies, have become entirely fluid.

Quite otherwise is it with the cholera comma-bacillus, the colonies of which, under completely the same conditions of existence, grow much more slowly and are colorless. Liquefaction of the gelatine in the neighborhood of the colonies proceeds only slowly, so that they sink deeply into the gelatine and form a deep narrow funnel-shaped depression. Each colony occupies the apex of a funnel and produces a distinct white point there. Even to the naked eye this appearance is very characteristic. The microscopical appearances of the colonies is especially characterized by an uneven and jagged border, and the entire colony appears as if made up of glancing pieces of finely broken glass. There is no development of any odor even after five or six days, or, at most, only a slightly aromatic odor.

Still more decided if possible are the differences in cultures in reagent tubes. These are well shown in these cuts, made from drawings[2] of cultures in the Carnegie Laboratory. The Finkler and Pryor, after two or three days, has rendered fluid the culture medium not only on the surface, but also throughout the entire length of the line of inoculation, and presents the form of a long slender pouch, or a deep narrow funnel. In cultures of the cholera bacillus prepared in a quite similar manner, the liquefaction of the gelatine is never present, at first, throughout the entire length of the line of inoculation, but appears only at the upper end, forming here a sharp bordered funnel or crater-shaped depression which apparently encloses an air bubble. The lower portion of the line of inoculation appears for some time as a fine white line. These points of difference in the appearance of colonies of the different germs in geletine tube and plate cultures are exceedingly characteristic and very constant, and almost all observers working independently have arrived at the same conclusions and agree that it is scarcely possible to confound these two comma-bacilli.

FIG. 1. FIG. 2.

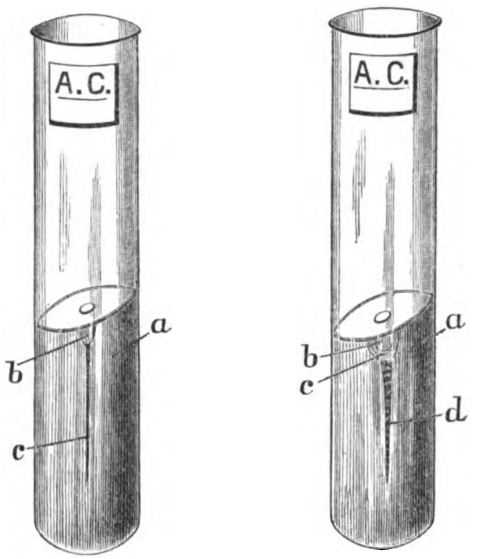

FIG. 1.—Test-tube culture of comma-bacillus of cholera Asiatica in nutrient gelatine. Culture twenty-four hours old.

a. Nutrient gelatine.

b. Commencing formation of air bubble.

c. Line of inoculation, along which the growth of the colonies is as yet scarcely perceptible.

FIG. 2. — Test tube culture of comma-bacillus of cholera Asiatica. Culture about forty-eight hours old.

a. Nutrient gelatine.

b. Air bubble.

c. Zone of liquefied gelatine.

d. Line of inoculation. Growth of germs appearing at upper end.

On potatoes the cholera germ does not grow at all at a temperature below 32° C. At the temperature of the body it forms a dark brown layer. On the other hand the comma-bacillus of cholera nostras, or Finkler and Pryor, grows rapidly at 18° C., forming a thick yellowish-gray layer.

The comma-bacillus of the mouth, as isolated by Prof. Miller, of Berlin, resembles very closely the Finkler and Pryor comma-bacillus, both in its mor-

[1] A word of explanation may be added as to the method of making plate cultures of microörganisms. It is done in the following manner: A test-tube about one-third full of carefully sterilized nutrient gelatine is heated slightly until the gelatine becomes liquid. This is then inoculated by means of a slender platinum wire, either from some other culture of the germs required or from any substance or liquid containing germs that it is desired to isolate and study. After inoculation the tube is thoroughly shaken to distribute the germs evenly through the fluid. This forms what is known as the first dilution. From this a second tube is inoculated in exactly the same manner, and forms the second dilution. Sometimes even a third is made. The contents of the tube containing the second or third dilution are then poured out upon a sterilized glass plate that has been rendered cold by placing over ice-water. On this the gelatine quickly solidifies in a thin layer. The microörganisms which have been mingled with the gelatine, and have been thus separated and isolated, are fixed wherever they may fall, and from each individual a colony develops. Of course, these colonies, each of which develops from a single germ, form absolutely pure cultures of that germ. In this way the development of the colonies of different germs may be studied under the low power of the microscope, and by the peculiarities shown by the different colonies in their growth, the germs can be isolated with little difficulty.

[2] I wish to acknowledge my indebtedness to Dr. Frank Grauer, of the Carnegie Laboratory, who very kindly made the drawings of the cultures for me.

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phological appearances and its manner of growth in different culture media. Although its identity with the Finkler and Pryor has not been satisfactorily proven, yet their similarity is so great, and it can be

FIG. 3. FIG. 4.

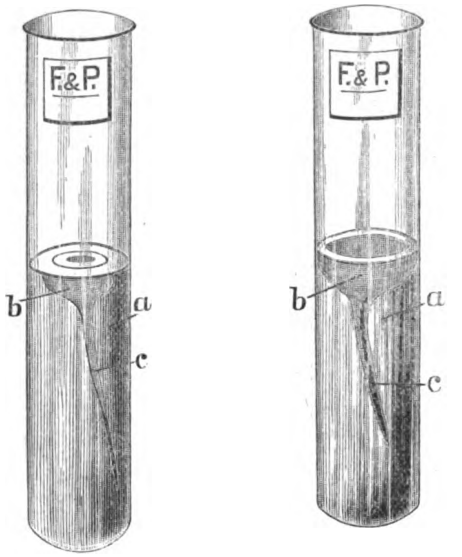

FIG. 3.—Test-tube culture of the comma-bacillus of cholera nostras, or Finkler and Pryor's culture, twenty-four hours old.

a. Nutrient gelatine.

b. Zone of cloudy liquefied gelatine, beginning to extend down along line of inoculation *c.*

FIG. 4.—Test-tube culture of comma-bacillus of cholera nostras. Culture forty-eight hours old.

a. Nutrient gelatine.

b. Zone of cloudy liquefied gelatine, that has extended to the sides of the tubes, and is extending along line of inoculation *c.*

distinguished so readily, from the Koch comma, by the characteristics shown in the growth and development of the colonies in different culture media, that it seems unnecessary to consider it more fully here.

As far as the writer's own experience is concerned in the cultivation of microörganisms, he has never found any kind of bacteria comma-shaped or otherwise, which could for a moment be mistaken in cultures for the Koch comma-bacillus, where the whole life history of the germ was taken into consideration.

Nicati and Rietsch, of Marseilles, succeeded in producing death in dogs with choleraic symptoms and lesions, after first ligating the common bile-duct and then injecting into the duodenum a small quantity of material from a pure culture of the Koch comma-bacillus. The same results were obtained in the case of guinea-pigs without previous ligation of the bile-ducts. When in place of the Koch comma-bacillus, the Finkler and Pryor was used by other observers, the results, in a large proportion of cases, were entirely negative. After death almost pure cultures of the Koch comma-bacillus were found in the contents of the intestinal canal. These experiments have been repeated and confirmed by Koch and others in Germany, but, on the other hand, certain English observers have absolutely denied the correctness of the results obtained, and claim that the effects of both the Koch and the Finkler and Pryor comma-bacilli are absolutely nil.

FIG. 5. FIG. 6.

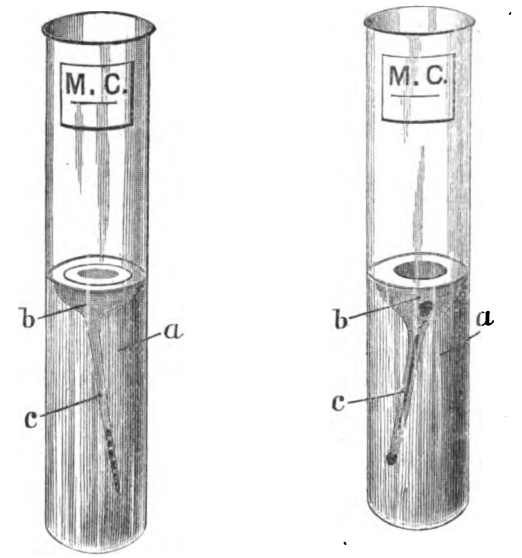

FIG. 5.—Test-tube culture of comma-bacillus isolated from mouth by Prof. Miller, of Berlin. Culture twenty-four hours old.

a. Nutrient gelatine.

b. Liquefied gelatine.

c. Line of inoculation.

FIG. 6.—Test-tube culture of the comma-bacillus of the mouth. Culture forty-eight hours old.

a. Nutrient gelatine.

b. Liquefied gelatine, extending along line of inoculation (*e*), in which colonies are developing.

At the second meeting of the Cholera Conference in Berlin in May, Koch reports the methods and results of his experiments as follows. The guinea-pigs first receive 5 ccm. of a 5 per cent. solution of soda, and 20 minutes later 10 ccm. of beef bouillon, containing the comma-bacilli, is injected into the stomach. Immediately after this, tincture of opium (1 ccm. to each 200 gramme weight of the animal) is injected into the peritoneal cavity. The animals are narcotized by this for from half an hour to an hour, then they recover again completely. The following day they seem to be sick, and die after from one to three days. The autopsy shows swelling of the small intestines, which, together with the stomach and cæcum, are filled with an alkaline, colorless, flaky fluid containing almost pure cultures of the comma-bacilli. Eighty-five experiments were made in this manner with the same result in each case.

Koch further added that from the 150 physicians who took the cholera courses during the autumn and winter, one had a mild attack of cholera and in his stools the comma-bacilli were found.

These experiments on guinea-pigs cannot by any means be received as constituting absolute proof of the causal relation of the comma-bacillus to cholera, even when taken in connection with all the other known facts, but may be regarded as affording additional confirmatory evidence.

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Emmerich, of Munich, in Dec. 1884, described a short straight bacillus, which he believed was the cause of cholera. This bacillus he found in the blood and tissues of a number of persons either suffering from or dead of cholera, and he claimed to have produced death in animals with choleraic symptoms after administering fluids to them, which contained this germ. But the methods of his work were not reliable and his conclusions have not been accepted.

The next publication that especially deserves attention is the report of the English Cholera Commission, which was sent to India to investigate the etiology of cholera. From this report, a summary of which is given below, it will be seen that there is not a single important point in Koch's conclusions, with which they do not take issue, with the exception of the constant occurrence of this microörganism in cholera cases. However, they do not believe its presence is confined at all to this disease, but practically assert that it is a putrefactive germ, is not to be distinguished from other putrefactive microörganisms, either by its morphological appearances, its life, history, or the peculiar characteristics of its growth in different culture media, and, in a previous report, state that it occurs under various other conditions, such as simple diarrhœa, phthisical diarrhœa, etc.

It is especially necessary to note here that in the work of the English Cholera Commission almost entire reliance was placed on the microscopical examination, and that the culture tests were used but little, if at all, to determine the presence of the Koch comma-bacilli. Now it has been repeatedly shown that the microscopical examination is entirely unreliable, and that this germ cannot, with certainty, be differentiated from the Finkler and Pryor comma-bacillus and other forms of bacteria without the aid of the culture tests, so that their work is practically excluded at the very beginning. The conclusions of the Commission are as follows:

1. Koch's statements as to the constant occurrence of comma-bacilli in the rice water stools of cholera patients is correct: the comma-bacilli vary greatly in numbers in different stools and in different cases, in some being exceedingly scarce, in others numerous.

2. These comma-bacilli vary greatly in length, some being twice or three times as long as others, some well curved, as much as to form half a circle, others showing only just a slight bend. The name comma-bacillus is inappropriate; the organism is more correctly termed a vibrio.

3. The comma-bacilli occur in the mucous flakes of the rice-water stools as well as in those taken from the ileum of a person dead of cholera. The sooner after death the examination is made the fewer comma-bacilli are found in the mucous flakes. Even in typical fatal cases the mucous flakes taken from the ileum, and examined soon after death (from between fourteen minutes to an hour or an hour and a half), contain the comma-bacilli only very sparingly indeed, and not to the exclusion of other bacteria. Our investigations do not bear out Koch's statement as to the lower part of the ileum being, in acute typical cases of cholera, almost "a pure cultivation of comma-bacilli." In not one of the many post-mortem examinations of typical acute cases have we found such a state.

4. The mucous membrane of the ileum in typical rapidly fatal cases, if examined soon after death, does not contain in any part any trace of a comma-bacillus or any other bacteria, not even in the superficial loosened epithelium. If the post-mortem examination be sufficiently delayed, comma-bacilli and other bacteria may be found penetrating into the spaces of the mucous membrane. Koch's theory as to the comma-bacilli present in the mucous membrane secreting a chemical poison inducing the disease cannot, therefore, be correct.

5. Neither the blood nor any other tissue contains comma-bacilli or any other microörganisms of known character.

6. The behavior of the comma-bacilli in artificial media is not such as to justify their being considered as specific. They grow well in alkaline and neutral media, are not killed by acids, and their mode of growth in gelatine mixtures is not more peculiar than that of other putrefactive bacteria; they show marked differences when growing in different media, but not more so than the ordinary putrefactive bacteria when compared in their growth with one another. The *comma-bacillus of the mouth* shows the *same peculiar character* of growth in gelatine as Koch's comma-bacilli.

7. Koch overlooked the fact that "comma-bacilli" occur in other intestinal diseases in the mouths of healthy persons, and, as shown recently, even in some common articles of food (by Dr. Deneke, in stale cheese).

8. The experiments performed by Koch and others on animals do not, in the least, prove that the comma-bacilli are capable of producing cholera or any other disease. The results obtained by them are much more easily explained in an opposite manner.

9. There is direct evidence to show that water contaminated with choleraic evacuations, and containing of course the comma-bacilli when used for domestic purposes, including drinking, by a large number of persons, did not, in the case of the tanks near the Jelepara Lane, produce cholera.

10. The mucous flakes taken from the small intestine of a typical rapidly fatal case of cholera contain numerous mucous corpuscles filled with peculiar minute straight bacilli; in this state they are found when the examination is made very soon after death; soon, however, the mucous corpuscles swell up and disintegrate, and then their bacilli become free. The small bacilli are never mixed in the mucous flakes. They are one-third or one-fourth the length of the comma-bacilli and about half of their thickness. They are non-mobile; they grow well in agar-agar jelly, but show in their modes of growth no peculiarity by which they could be considered as specific. When grown on the free surface of the nourishing material they form spores.

11. These small bacilli are not present in the blood in the mucous membrane of the intestine, or in any other tissue.

12. Experiments made with these small bacilli on animals produced no result.

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13. Since my return to London I have ascertained that the comma-bacilli of cholera show two distinct modes of division, one the known one of transverse division, and a second one of division in length. When growing in agar-agar jelly at the ordinary temperature of the room, after some days the bacilli swell up owing to the appearance in their protoplasm of one or more vacuoles; as these vacuoles increase, the comma-bacilli become gradually changed, first into the plano-convex, then into oblong biconvex, and ultimately into circular corpuscles. The longer the original comma-bacillus the larger the final circle. These circular organisms are mobile just as are the comma-bacilli; and by disintegration of the protoplasm at two opposite points two perfect more or less semicircular comma-bacilli are formed. Growing the comma-bacilli in agar-agar jelly kept at higher temperatures (30 to 40° C.), the comma-bacilli multiply by transverse division only; but transferring these to agar-agar jelly, and keeping at the ordinary temperature of the room, they again gradually change into circular organisms, which by division in the diameter of the circle form two new comma-bacilli.

From this report it will be seen, as was before stated, that there is not a single important point in Koch's deductions with which the English investigations do not take issue, with the exception of the constant presence of the comma-bacilli, in all cases of cholera, both intra vitem and post mortem.

Let us consider briefly each of the important points of these conclusions:

3. In the third article Klein states that the sooner after death the examination is made the fewer comma-bacilli are found in the mucous flakes present in the contents of the ileum, and in no case was anything approaching a pure culture found. The examination upon which this statement is made were simply microscopical in character, and Cheyne has shown (as all workers in bacteria should have known), that this method of examination is entirely unreliable, since in typical rapid cases where microscopical examination showed but few comma-bacilli, culture experiments proved that from 70 to 90 per cent. were the comma-bacilli.

4. In the fourth article Klein states that neither comma bacilli nor any other microörganisms are present in the mucous membrane of any part of the intestines soon after death, and that Koch's theory as to the comma-bacilli present in the mucous membrane secreting a chemical poison inducing the disease, cannot, therefore, be correct. Positive evidence is always more valuable than negative, and, as is well known, many microörganisms in tissues are difficult to stain. Koch is the great master of this art, and his statements on this point must be accepted.

6. In the sixth article Klein states, in substance, that the growth of these germs in culture media is not different from putrefactive germs in general, and that they are putrefactive microörganisms. All other competent observers, without exception, agree with Koch on this point that the growth of the comma-bacilli in both tube and plate cultures is very characteristic and very constant. Klein further states that the comma-bacilli of the mouth show the same characteristics in cultures as the Koch comma. This he afterwards admitted was not the case.

7. In the seventh article Klein states that Koch overlooked the fact that comma-bacilli occur in other intestinal diseases, in the mouth of healthy persons, and in certain articles of food. Here, as everywhere through the report, the comma-shaped form of the bacillus is assumed to be the distinguishing characteristic of the cholera germ. This is not by any means the case. That Koch did not know at that time of the existence of the comma-shaped bacilli to which Klein refers is true, but he did know of the existence of other comma-shaped bacilli, and refers incidentally to them in his report.

8. As to the experiments on animals with the Koch comma-bacillus, it is not claimed that these experiments, in producing cholera in animals, absolutely prove that the cholera-bacilli are the cause of cholera, but that they constitute strong confirmatory evidence in that direction.

9. The same may be said of the ninth article as was said of the fourth, namely, that he depended entirely upon morphological appearances, and did not resort to culture tests.

10. It is not necessary to refer to the small bacilli described by him, as no claim is put forward for them, and as they were regarded as putrefaction germs.

13. As to the transverse division described by Dr. Klein, as sometimes occurring in the cholera-bacilli, it is only to be said, that it has not been observed by any other investigator, and, under any conditions, it has no bearing upon the relation of the microörganism to the disease.

Dr. Van Ermengen, in the report of his researches upon the microbe of cholera, undertaken on behalf of the Belgian government, entirely confirms Koch's conclusions in every particular.

Mr. Watson Cheyne, in his admirable report on the cholera bacillus to the Scientific Grants Committee, differs from the conclusions of the English Commission on every disputed point, and completely confirms the conclusions of the German Commission.

In the *British Medical Journal*, of May 9th and 16th, Dr. Klein details the results of some further investigations on the cholera bacillus. He states (*British Medical Journal*, May 16th) that, in the cæcum of normal guinea-pigs, "the typical comma-bacilli of Koch may be found;" and gives (*British Medical Journal*, May 9th) the results and some experiments, to establish the opinion which he had previously advanced, namely, that the Koch comma-bacilli, merely found in the intestines of cholera patients, under the conditions favorable for their multiplication, bear no essential causal relation to the disease; that is to say, they are the result, and not the cause, of the disease. He says, "in a monkey, which had received a dose of castor oil the previous evening, the abdomen was opened under spray, the lower ileum was drawn out, one ligature tied just above the ileo-cæcal valve; another about 2–4 inches higher up; the larger vessels of the mesenteric border were avoided as much as possible; into this loop a hypodermic syringe, full of a saturated solution of

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magnesium sulphate, was injected; the ileum was replaced; the wound was stitched up; a bandage was applied, and was covered with collodion. Careful antiseptic precautions were observed throughout. In this manner six monkeys were operated on. One of the animals was dying the same evening; one was dying after three days were over; the others were killed after forty-eight hours."

"No comma-bacilli were found in the contents of the ileum withdrawn before the ligation of the loop of intestines. In three of the animals killed after forty-eight hours the tied loop contained a brownish fluid with many mucous flakes. In the contents were found numerous comma-bacilli. In one case they were more numerous than in some typical acute cases of cholera. It is evident from this that the pathological state of the intestines produced the conditions favorable to the multiplication of the comma-bacilli; and that they are, therefore, the *result*, and not the *cause*, of the disease. I am unable to distinguish them from the cholera comma bacilli, and they appear to be identical with the latter."

As Watson Cheyne denies the presence of the Koch comma-bacilli in the cæcum of normal guinea-pigs, and the results of Klein's experiments seem too improbable to be accepted until further confirmed, especially as so few details are given, it seems probable that Dr. Klein has fallen into the same error as before, namely, of depending upon morphological appearances, instead of culture tests.

Finally, as to the inoculation experiments with the cholera bacilli of Dr. Ferrán, there seems to be not the slightest ground for giving them any credence. Granted, in the first place, that the Koch bacillus is the cause of cholera, even then there is nothing to be hoped for from protection by inoculation, for reasons too evident to call for remark. It seems altogether probable that the peculiar phases which Ferrán describes as occurring in the life of the comma-bacillus are due to impurities in his cultures, and that it is to these impurities that the effects of his inoculations are to be ascribed.

We have now considered most of the important points at stake in the controversy, and can draw our conclusions as to the present status of the Koch comma-bacilli. The recent discussion before the Medical and Surgical Society in London elicited no new facts, and it is not necessary to refer to it more fully. These conclusions, then, may be drawn:

1. That Koch's claims as to the discovery of a germ peculiar to cholera, which possesses certain morphological and biological characteristics, that differentiate it sharply from all other germs, have stood the test of investigation by many observers, and remain yet to be disproved.

2. It is acknowledged by all investigators, without exception, that the Koch comma-bacillus is always found in Asiatic cholera in greater or less numbers, and that it is absolutely diagnostic of cholera, whether it bears any etiological relation to the disease or not.

3. That, although it cannot be considered as absolutely proven that the Koch comma-bacillus is the cause of cholera; yet its constant presence in this disease, and its absence under all other conditions, its relation to the course and intensity of the disease processes, and its peculiar life history, constitute very strong presumptive evidence in this direction.

4. Whatever may be the ultimate conclusion of medical men on this question, that still the greatest honor is due to Dr. Koch for having placed at our disposal a method for the diagnosis of Asiatic cholera.

21 EAST TWENTY-FIRST ST., NEW YORK,
July 12, 1885.

A NEW BANDAGE FOR FIXATION OF THE HUMERUS AND SHOULDER-GIRDLE.

BY CHARLES W. DULLES, M.D.,

FELLOW OF THE COLLEGE OF PHYSICIANS AND OF THE ACADEMY OF SURGERY OF PHILADELPHIA; SURGEON TO THE OUTPATIENT DEPARTMENTS OF THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA, AND OF THE PRESBYTERIAN HOSPITAL, IN PHILADELPHIA.

IN the treatment of injuries about the shoulder-joint, such as luxation, contusion, fracture of the clavicle, or of the acromial end of the scapula, etc., I have often felt the need of some form of bandage, which, while as efficient as the Velpeau or Desault bandage, should be less cumbrous; and I have been led to try various modifications of these until I hit upon a way of bandaging which has been so satisfactory to me and to my patients that I wish to bring it to the notice of my professional brethren, and to obtain their judgment upon its merits.

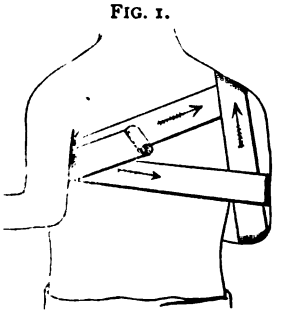
This form of bandage requires, for an adult, a roller about three and a half inches wide, and about ten or twelve yards long. It is applied as follows:

The arm of the injured side should be placed against the chest-wall, almost in the perpendicular line, but with the elbow a little in advance, and the forearm flexed at a right angle and laid across the lower part of the chest.

A large piece of lint, or a soft towel, or a piece of old muslin, should now be interposed between the arm and the body, going well up into the axilla, so as to prevent the excoriation which usually results from the apposition of two skin surfaces.

Then the surgeon, standing behind the patient, and a little toward the injured side, should apply the initial end of the roller to the axilla of the sound side, and carry the bandage diagonally across the

FIG. 1.



Back view.

back to the top of the shoulder of the injured side; then straight down the front of the arm to the point of the elbow; then under this to the back of the arm; then up behind the arm to the shoulder, where the

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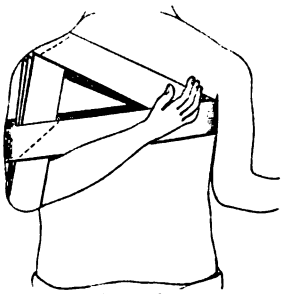
preceding turn crossed it At this point a firm pull should be made on the bandage, to draw the humerus well up against the glenoid cavity. In cases of fracture of the clavicle or scapula, this piece can easily be regulated so as, with the aid of a little manipulation, to place and keep the ends of the bone in position. Then the bandage is to be carried diagonally across the front of the chest to the axilla of the sound side; then through this axilla to the back; then horizontally across the back to the lower third of the arm of the injured side, and round this to the front of the arm; then across the front of the

FIG. 2.

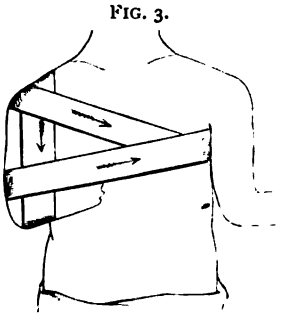


Front view.

chest to the axilla of the sound side, leaving the forearm out; then through this axilla to the back near the point of starting. The appearance of the bandage when one complete circuit has been made is shown (back and front views) in Figures 1 and 2. The bandage is completed by repetition of these turns till the roller is used up, advancing with each turn a little way up on the shoulder, and a little way up on the arm. If one roller does not suffice to give the support desired, of course a second must be added (Fig. 3).

After the bandage is in place a few large pins should be inserted at each crossing, and the hand and

FIG. 3.



Front view.

forearm should be supported by a sling. In addition to the pins, the bandage may be stitched so as to make a firm case; or a few strips of adhesive plaster may be applied along and across it in different places, which will give the greatest possible security. It is a good plan to attach a strip of adhesive plaster, an inch and a half wide, from just below the shoulder, over the outer side of the arm and round the point of the elbow, to about the middle of the forearm. This will prevent the bandage from slipping off the elbow.

In certain cases it is advisable to include the forearm in the bandage, so as to bind it firmly to the chest-wall. But one of the special advantages of this method, in my opinion, depends upon the fact that it can usually be employed without including the forearm.

This form of bandage accomplishes the following results: It fixes the scapula and the outer end of the clavicle, holds the head of the humerus well up against the glenoid cavity, and fixes the whole bone against its natural splint, the chest wall. Among its advantages the most important, in my opinion depends upon the exactness with which, by drawing up the humerus in the line of its axis, the bone and the shoulder-girdle can be held in a position in which there is the least muscular interference with the proper position of the fragments in a fracture of the scapula or clavicle, or of the different bones in a luxation at the shoulder-joint. I find that, with a little manipulation with my free hand, and careful regulation of the upward pull upon the humerus and the downward pressure upon the scapula or clavicle, by means of the bandage as it goes along, I can get all that I can ask for in the way of correct anatomical relation of parts. The position of the humerus, which I have indicated, is also, I believe, a better one than that which is maintained by the bandage most frequently employed—I mean the Velpeau bandage.

The comparative lightness of this dressing is also an advantage, as well as the fact that it leaves the upper and lower ends of the arm uncovered, so that they may be examined at any time, or have applications made to them. The freedom of the forearm I have already alluded to as an advantage whenever it is admissible.

There is no danger of the bandage slipping, if it be snugly and firmly applied, and if it be wide enough. It is easy to make it fit nicely at the elbow, so as to hold this in a sort of cup made by the slight elasticity of the material.

It is also easy, by varying the position of the turns, to make the bandage cover any particular point in the scapula, or in the outer end of the clavicle, or in the humerus. In fractures of the clavicle, or scapula, a suitable compress may be placed over the seat of fracture; while, in any fracture of the humerus, to which such a dressing is suitable, the arm may be splinted against the chest-wall by carrying the horizontal turns high up.

I will not attempt to speak of the conditions to which this form of bandage is applicable, but I think they are all those in which fixation of the arm and shoulder-girdle is the important object.

I am aware that it is somewhat dangerous to call anything new in these days, but I have so designated the bandage I have just described, because I have not met with any description which corresponds to it. If I am mistaken, I shall be happy to be corrected.

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DISINFECTANTS.

PRELIMINARY REPORTS OF THE COMMITTEE ON DISINFECTANTS OF THE AMERICAN PUBLIC HEALTH ASSOCIATION.

XV.

CONSIDERATIONS CONCERNING THE PRACTICAL USE OF MERCURIC CHLORIDE AS A DISINFECTANT.

BY VICTOR C. VAUGHAN, PH.D., M.D.,
PROFESSOR OF PHYSIOLOGICAL CHEMISTRY IN THE UNIVERSITY OF MICHIGAN.

SINCE mercuric chloride has been put forward as one of the most reliable disinfectants, its practical use has been largely discussed, and some supposed dangers in its general employment have been brought forward. It was for the purpose of ascertaining how much truth there may be in these statements that the following experiments were undertaken.

Is there danger of the passage of this highly poisonous salt from cesspools and privy-vaults, in which its use has been recommended, through the soil into wells? Sanitarians have had so much to say about well-water being poisoned by the filtration of organic matter through the soil from privy-vaults and cesspools, that it is not surprising that the above question should be asked. In order to answer it, the following experiments were made:

Experiment 1.—A large glass funnel carrying a filter-paper was filled with gravel, taken from a distance of about four feet beneath the surface. The weight of the gravel was eleven and three-fourths pounds, and, when placed in the funnel, it formed an inverted cone with a base of ten inches diameter and an altitude of eight inches. On this was poured one pint of standard solution No. 2 (corrosive sublimate and permanganate of potash, two drachms of each to the gallon of water), recommended for the disinfection of excreta. After a few minutes a pint of distilled water was also filtered through the soil. This was done in order to wash through any mercury that might be held mechanically in the gravel The filtrate was collected, concentrated to one fluidounce, and tested for mercury. The result was negative. The soil retained all of the poison.

Experiment 2.—This was similar to the above, but black loam was used instead of the gravel. The weight of the soil used was seven pounds. The result was the same as with the gravel.

Experiment 3.—In this instance, clay was used. The weight of the clay was nine and one-fourth pounds. As the soil in this case was very dry, it was thoroughly moistened with water before the solution of mercuric chloride was poured on.

These experiments show that the quantities of the different soils, as given above, will remove from solution and retain all the mercury contained in one pint of standard solution No. 2,—fifteen grains of mercuric chloride. That a much smaller amount of soil would accomplish the same result, was shown by the following:

Experiment 4.—One and one-half pounds of gravel were placed on the filter, and one pint of standard solution No. 2—one ounce at a time—was filtered through the gravel. The filtrate contained no mercury.

From these experiments it will be seen that the fear that mercuric chloride may filter through the soil, when used as a disinfectant in privy-vaults and cesspools, into wells and thus poison the water, is groundless. Of course, where there is open connection between the cesspool and wells by the formation of small subterranean rivulets, there would be danger. The fixation of mercury in the soil is doubtless largely, if not wholly, due to the presence of certain inorganic salts, such as carbonates and phosphates, which form insoluble compounds of mercury.

At the recent Cholera Conference at Rome, Dr. Koch gave, as one of his reasons for not recommending mercuric chloride as a disinfectant, the belief that its disinfecting action was interfered with by the fact that it entered into combination with albuminous material, and thus failed to come into contact with germs enclosed in albuminous masses.[1] That a combination between the mercury and albumen does occur may be shown by the following very simple test:

Experiment 5.—Suspend some recently precipitated mercuric oxide in distilled water, add some egg-albumen, agitate thoroughly, and filter. The filtrate is clear and colorless. Boil this filtrate with potassium chlorate and hydrochloric acid until all the organic matter is destroyed. Then test for mercury with hydrogen sulphide or stannous chloride. The mercury will be found to be present, and all that which was used as mercuric oxide can be recovered.

Albumen dissolves the oxide, forming, probably, mercuric albuminate; but there is no reason for believing that the mercuric albuminate does not diffuse through organic matter. As shown in the experiments, it is freely soluble and readily passes through the filter-paper. It is altogether probable that it is this mercuric albuminate which forms such a powerful germicide. In this compound we have the mercury in the shape in which it would most likely be taken up by those lower forms of life which feed upon albuminous material.

Medical men have, for a long time, regarded "yellow wash" as the most successful application that could be made to syphilitic sores. Is it not likely that its great value is due to the formation of mercuric albuminate, which has a local action on the virus, and penetrates the tissue as well? A substance which is not absorbed by living organisms is not poisonous to them, and if by the formation of this mercuric albuminate the most readily absorbable form of mercury is secured, its poisonous properties are intensified.

Further considerations concerning the use of mercuric chloride will be presented as soon as some additional experiments are made. The writer is indebted to two of his students, Messrs. Wagner and Bobb, for aid in the experimental work.

Note.—By Dr. G. M. Sternberg, Chairman of Committee.

I have recently made some experiments to deter-

[1] THE MEDICAL NEWS, June 20, 1885, p. 707.

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mine the antiseptic power of mercuric oxide. In the proportion of 1 : 1000 it has prevented any development of microörganisms in veal broth, inoculated with two or three drops of "broken-down" beef-tea. In the proportion of 1 : 2000 and 1 : 4000, it restrained development for a time, but at the end of forty-eight hours the broth became clouded near the surface, and at the end of seventy-two hours, had broken down completely. (The same culture-fluid broke down in 24 hours when not treated with an antiseptic.) This very decided antiseptic power shows that mercuric oxide is far from being "inert" from a biological point of view.

A CASE OF INFLAMMATION OF POSTERIOR BRONCHIAL LYMPHATIC GLANDS LEADING TO FATAL HEMORRHAGE.

BY D. W. BARRY, M.D.,
OF VIENNA, AUSTRIA.

PATIENT, aged 71 years, female; well developed and robust-looking, entered the Allgemines Krankenhaus in May of this year. Complained of "spitting blood." She was examined, but no sign of tuberculosis was found; but, on the contrary, a high grade of emphysema; patient had not lost flesh, had no night-sweats, and gave no history that would tend to show phthisis; nevertheless the case was set down as probably a case of phthisis, owing to the great frequency of this disease in Vienna.

Following a profuse hemorrhage she died, and the autopsy revealed the following:

Brain slightly adherent to dura mater, and atrophic —as would be expected from age of patient—otherwise nothing pathological was found.

Larynx and trachea filled with a blood clot which reached from the vocal chords into the bronchial tubes.

Lungs highly emphysematous; no tubercles were found.

Heart small, fatty, with slight senile thickening about the valves, and slight atheroma at the base of the aorta.

The stomach was then examined in the hope of there finding some cause for the hemorrhage, and was found to contain about four ounces of semi-coagulated dark blood. On the gastric mucous membrane no ulcer or other pathological condition was found.

The lungs, heart, œsophagus, etc., were then carefully dissected out, and, on opening the œsophagus, a small orifice was found on its anterior surface through which a probe could only be passed to the depth of about one-fourth inch. The trachea was then opened, and on its posterior wall, about one inch and a half below the orifice, in the œsophagus, an ulcer was found through which a probe was made to pass into the œsophagus at the orifice in its anterior surface.

As this could not be the cause of the profuse hemorrhage, the trachea was opened completely, the cut extending into the larger bronchial tubes; and in one of these, on the left side, a large, irregular orifice was found which led into one of the posterior bronchial lymph glands; this, on being opened, was found to be completely broken down, and contained blood coagula, necrotic tissue, and, covering the inside surface, was a layer of quite hard fibrine.

On further examination several fistulæ were found, one leading into the trachea, another into the bronchus, and still a third, and more recent, which led into the vena cava superior; this last fistula explained everything, as it was, without doubt, the cause of the last and fatal hemorrhage.

In closing I may say that in this case the autopsy explained fully all the symptoms; as, quite likely, during the slow inflammation of the lymph gland no particular distress was felt, and it was not until a communication was formed between the gland and bronchus that the patient commenced to expectorate blood, and then she sought medical aid. The bleeding at first was small, and probably came from the gland or bronchial tubes; it increased in quantity as the inflammation increased, and the last profuse hemorrhage followed the ulceration into the vena cava.

MEDICAL PROGRESS.

TREATMENT OF INFANTILE CORYZA.—DR. FLATOW, in the *Deutsche Med. Zeitung*, recommends the following treatment for infantile coryza:

℞.—Quiniæ hydrochlor. . . . 1 part.
Glycerinæ . . . . . 15 parts.—M.

S.—Apply a few drops with a brush to the nasal mucous membrane three or four times a day.—*L'Abeille Médicale*, August 3, 1885.

NEPHRECTOMY.—On the 14th of July, Mr. Clement Lucas removed, in Guy's Hospital, by lumbar incision, a large cystic floating kidney, filled with calculi of such a size that they could be felt through the abdominal wall and be made to grate one against another. The organ was removed without injury to the peritoneum, and the patient has progressed most favorably, her temperature since the operation never having risen above normal. On the 16th inst., Dr. George Elder, of Nottingham, performed the same operation on a woman aged fifty-six, for calculous pyelitis, the temperature being normal on the third day after removal of the kidney.—*The Lancet*, July 25, 1885.

TREATMENT OF WHOOPING-COUGH.—H. ROGER recommends the following mixture in the treatment of whooping-cough:

℞.—Tr. belladonnæ . . . f℥v.
Tr. valerianæ,
Tr. digitalis . . . āā f℥iss.—M.

Five drops of the mixture for children under two years. Each day the dose is augmented five drops until thirty drops are given in twenty-four hours. In patients from two to five years old ten drops should at first be prescribed, and every two days the dose increased until it reaches sixty drops. In case the tincture of valerian is badly tolerated it should be replaced by some other tincture—musk, for example. When nervous and spasmodic symptoms are prominent, the author has recourse to chloroform; and in children from two to five years of age administers from six to thirty drops of the drug in any appropriate menstruum.—*L'Union Médicale*, August 6, 1885.

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PAPAYOTIN IN DIPHTHERIA.—DREIER, in *Vratsch*, 1885, No. 15, reports the results of the use of papayotin in the treatment of diphtheria, at the Wladimir Hospital, Moscow.

A five per cent. aqueous solution was prepared daily, and applied profusely to the diseased regions of the throat every fifteen minutes. At night the drug was applied at intervals of two hours. In addition the fauces were washed four times every twenty-four hours with a 1 to 1000 solution of corrosive sublimate. After tracheotomy, a few drops of the solution of papayotin were dropped every fifteen minutes into the canula. Stimulants were given early in bronchitis; a one per cent. solution of bicarbonate of soda was inhaled, and tracheotomy was performed early in the course of the disease.

Only cases in which the diagnosis was early confirmed were selected. Out of twenty-four cases, in six the disease remained local. In twenty cases the constitutional symptoms were manifested. In nineteen there was albuminuria; in one endocarditis; in one diphtheritic myocarditis; in two paralysis of the fauces; in one abscess of the neck; and in one acute nephritis. Of these, fifteen died. In three cases the air-passages were involved, and death occurred in every instance. The papayotin was in some cases applied for thirty hours; in others for periods varying between two, three, and five days, without having any influence upon the temperature or course of the disease. Post-mortem examination also showed the regions covered with the diphtheritic membrane to which the solution of papayotin had been constantly applied. The papayotin used was, however, variable in its action, and sometimes albumen, meat, and connective tissues were completely digested in five hours, while at other times they were only swelled and macerated.—*Centralbl. für klin. Med.*, July 25, 1885.

TREATMENT OF CATARRHAL PHTHISIS, HÆMOPTYSIS, AND CHRONIC BRONCHITIS BY TERPINE.—M. GERMAIN SÉE considers terpine to possess the power of modifying the mucous membrane of the respiratory tract, and to be also a powerful agent in checking its secretions. He says:

1. It diminishes and causes the disappearance of the purulent expectoration in the catarrhal forms of phthisis, since the purulent secretion proceeds from bronchi irritated by tubercle or from the walls of pulmonary cavities; when the patient is in the beginning of the purulent stage, or, indeed, in the stage when cavities are beginning to form, terpine is indicated in all cases where the formation of pus is sufficient to fatigue the patient, destroy his strength, and cause wasting.

2. It is employed with success in hæmoptysis of beginning tuberculosis—that is to say, when the disease has not yet advanced to the development of large cavities with aneurism of the pulmonary artery.

3. In the treatment of pulmonary catarrh, chronic bronchitis independent of asthma, and only causing dyspnœa by obstructing the bronchi, terpine constitutes the best means of decreasing the secretion.

4. Its action, prompt, certain, and free from physiological inconvenience should make it preferable to preparations of tar and turpentine. It presents, moreover, on account of its perfect harmlessness, and easy digestibility, advantages over creasote.

5. The best mode of administering the drug is either by pill or in alcoholic solution. The best dose is fifteen grains.

6. In the treatment of nervous asthma, emphysematous or catarrhal, which must be distinguished from primitive catarrh, iodine and pyridine possess undoubted superiority.—*L'Abeille Médicale*, August 3, 1885.

GUNSHOT WOUND OF THE TRACHEA, FOLLOWED BY DEATH FROM EMPHYSEMA.—RYDYGIER, in *Przeglad lekarski*, 1885, No, 16, reports a case of gunshot wound of the neck, resulting in death from emphysema, notwithstanding the fact that tracheotomy was performed. The patient, a boy seventeen years of age, received the shot at a distance of about ten paces. After receiving the injury, the patient, unassisted, walked home, a distance of more than a mile.

No serious symptoms were manifested, the wound in the neck was scarcely the size of a pin's head and appeared dry, and the only application ordered by the attending surgeon was cold applications around the neck. On the following day there was slight emphysema of the skin around the wound, which extended in a few hours over the face and entire neck. At this time tracheotomy was performed; only temporary ease in respiration was experienced, however, and the emphysema continued to spread further until two days subsequently, when the patient died from suffocation.

Post-mortem examination showed that the bullet had perforated the cricothyroid ligament, the posterior wall of the larynx, the anterior and posterior wall of the pharynx, and had entered the sixth or seventh cervical vertebra. Here it turned at almost right angles, and appeared at the second thoracic vertebra and lay firmly embedded in the bone.

In both pleural cavities there were present about six ounces of bloody serum, while between the posterior wall of the larynx and the anterior wall of the pharynx was found pus, mingled with chyle. The cause of the continually increasing emphysema of the skin, in spite of tracheotomy, is difficult to determine, inasmuch as the perforation of the trachea was above the inserted tube. The termination of the case does not show tracheotomy, and, especially, its early performance, to be contraindicated in small wounds of the neck. The right-angled deviation of the ball is remarkable.—*Centralbl. für Chirurgie*, August 1, 1885.

CASE OF DOUBLE-SIDED TOTAL AMAUROSIS IN THE COURSE OF A SLIGHT ANÆMIA.—PROFESSORS M. LITTEN and J. HIRSCHBERG report the following singular case of complete double amaurosis occurring in the course of a slight attack of anæmia. The patient, a girl fifteen years of age, complained of having for some time previous noticed impairment of vision, and stated that for two days she had been entirely blind. The girl for her age was rather stoutly built, but seemed to be insufficiently nourished. The skin and mucous membranes were pale. The subcutaneous fat was scanty, but the muscles strong; menstruation began two years ago and occurred regularly. No history of illness, but for four weeks pain in the region of the stomach had

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been present. Examination showed no abnormal condition of any of the thoracic or abdominal organs. The pulse was 120, weak, regular, and easily compressible. Over the jugular veins on each side a whirr could be heard and felt. The pupils on each side were alike exceptionally large and staring. The expression of the patient was strange and almost lifeless. Brain clear. Amaurosis absolute. Examination showed choked disk on each side. The optic nerve appeared slightly red and dull, the margins obscure, the veins dilated and choked.

Nothing abnormal was discovered in the urine. Microscopic examination showed a condition of the blood characteristic of anæmia. The white corpuscles were increased slightly in their proportion. In the absence of all other causes, diagnosis was made of amaurosis due to anæmia. In order to observe the progress of the case the child was sent to a hospital. Here she was treated with syr. ferri iodidi, and in addition was well fed and kept in bed. No further pain in her stomach was observed, and her appetite became voracious, and an improved condition of the blood was noted. At the same time the size of the pupils diminished and their staring appearance was less marked.

Three days after the patient's entrance into the hospital she recognized light for the first time, yet only sufficiently to distinguish between the greatest contrasts of darkness and light. Within the next eight days her ability to see improved so rapidly that she could determine whether a curtain was up or down, and also could distinguish large objects at the distance of half a yard with great difficulty.

From this time on there was continuous improvement of vision, but central scotoma persisted, diminishing, however, as time advanced. At the same time the swelling of the optic nerve diminished, and on July 11th a prominence was scarcely visible The veins, however, were distended and full, and exhibited marked pulsation. Ophthalmoscopic examination on July 15th showed the posterior eye-ground to be entirely normal. The general condition of the patient was also much improved and the blood on examination was found to be normal.

The sudden advent of amaurosis and the rapid and complete restoration of vision under appropriate diet and tonic treatment are in this case remarkable features.

From a therapeutic standpoint it is also worthy of remark that the use of the iodide of potassium which is advantageously prescribed in many cases of engorged papilla of central origin would probably have been harmful, while desired effect was obtained by tonic regimen together with the administration of iron.—*Berliner klinische Wochenschr.*, July 27, 1885.

TREATMENT OF NEPHRITIS WITH SUDORIFIC AGENTS.—DR. HESS (*Vratsch., St. Petersburg Med. Wochenschr.*) has used as a means of causing perspiration damp wrapping in fifteen cases, hot baths, with subsequent wrapping in woollen covers twenty-four times, and hot-air baths twenty-one times, and has made observations in six cases of nephritis so treated. His results are as follows:

1. The least rise of temperature is obtained by wrapping, and the greatest by use of the hot baths.

2. While the temperature twenty minutes after the wrapping again falls, it remains after both the other methods elevated for nearly an hour.

3. After the hot-water baths the temperature returns more slowly to normal than after air baths.

4. The pulse by the wrapping process is slowed, but, on the contrary, it is quickened after both hot-air and water baths, and so continues an hour after the bath.

5. Under the influence of wrapping, the respiration is slow; in the baths it is more frequent, but it returns more quickly to the normal than after swathing.

6. The most marked diaphoretic effect was produced by the hot-air and water baths; the least marked by swathing.

7. The baths were the more stimulating to the nervous system, and the swathing the more sedative, and the patients accordingly preferred the former as more energetic and as improving their condition.—*Centralblatt für die Gesammte Therapie*, August, 1885.

MENTHOL AS A LOCAL ANÆSTHETIC TO THE MUCOUS MEMBRANE OF THE THROAT AND NOSE.—DR. ALBERT ROSENBERG, experimenting with menthol, has found it to be a valuable anæsthetic to the nasal and pharyngeal mucous membranes, and, while not displacing, is a valuable supplement to cocaine for such purpose.

In his experiments with menthol, Dr. Rosenberg used a 20 per cent. ethereal solution, and in the seventy cases experimented upon up to the present time, after the use of the agent, a marked diminution in the sensibility of the parts. No inflammation or cauterization has been observed.

In some cases the anæsthetic effect results immediately after the application of the menthol, while in other cases it is observed after a half minute or longer.

The duration of the effects caused by the thymol is not so long as that resulting from the use of a 20 per cent. solution of cocaine, but always persists from a quarter to a half hour, and sometimes is prolonged an hour to an hour and a half. Cumulative effects also seem to result.

To avoid the pain produced by the application, the author employs a 50 per cent. alcoholic solution. He has also employed an oily solution of the strength of 30 per cent. with good results. A 20 per cent. ethereal solution causes great diminution in the sensibility of the throat, and sometimes complete anæsthesia. In two cases cauterization of the pharynx with chromic acid was practised after applying solution of the drug to the mucous membrane, without causing either reflex spasm or pain.

Dr. Rosenberg does not hold that menthol should displace cocaine as a local anæsthetic, but considers its use indicated,

1. In preliminary applications to the nose in order to determine whether a neurosis has its origin in this organ.

2. In cases where the sensibility of the nose is too great to permit operation, and where it is desired to diminish, as much as possible, pain and reflex movements.

3. In operation upon the pharynx, menthol may be substituted for cocaine, either to facilitate examination, or to render such procedure less painful.

4. Experiments hitherto made with the drug upon the larynx are not sufficiently conclusive to establish the extent to which it may be applied, although the sensi-

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bility of the p: is diminished and respiration more easy, even in a subject affected with adduction of the vocal cords.—*Berliner med. Wochenschr.*, y 13, 1885.

OPERATION OF THYROIDECTOMY.—DR. T. F. CHAVASSE, in a clinical lecture, reviews the operation of thyroidectomy as follows:

Thyroidectomy having been decided upon, the following points must be considered: I. The question of prognosis. II. The method of operation to be followed. III. The dangers to life during and subsequent to the operation.

I. *Prognosis.*—1. With regard to age. The patient being young, the chances of a successful issue are more favorable. According to Billroth, after forty, a successful termination is very doubtful.

2. The larger the tumor the greater the risk to life, this being mainly due to the increased size of the various bloodvessels. There is also a probability of its adherence to the trachea, especially if the isthmus be a broad one, or of the growth passing backwards between the windpipe and the œsophagus, thus enhancing the difficulty of applying the necessary ligatures to the pedicles. If the goitre be limited to the isthmus of the gland the operation is much simplified.

3. Substernal goitre is very unfavorable for operation, as it can only be reached with extreme difficulty. Experience has shown that the more serious the symptoms of asphyxia, so much the less are the chances of success offered by ablation.

II. *Method of Operation.*—The earliest operations were performed by cutting down upon the gland, extirpating as rapidly as possible, and staunching the hemorrhage the best way the surgeons could.

An advance upon this method was that adopted by Vogel in 1771, in which all the main arteries supplying the goitre were ligatures beforehand, and the gland removed by a circular incision. Hedenus, of Dresden, who was the most successful operator at the beginning of this century, employed a median vertical incision, and the tumor was freed as far as the entrances of the thyroid arteries into the gland. A double ligature was then applied to each vessel, and a division made in the interspace. In spite of these precautions there was often great hemorrhage. If the tumor was attached to the thyroid cartilage or upper rings of the trachea, it was transfixed with ligatures, then another was passed round the entire base and the gland removed.

In a patient upon whom Graefe successfully operated in 1820, the procedure was divided into stages. The right superior thyroid artery was first ligatured. On another occasion the right lobe of the gland was removed. The patient left the hospital, subsequently returning, when the left upper artery was ligatured, and afterwards the left lobe was successfully taken away.

The late Warren Greene, Professor of Surgery in Maine, in 1866, advocated the following method: 1. A linear incision through the integument; avoid wounding the tumor or its fascia propria. 2. Divide the fascia upon a director in the median line. 3. Reflection of the same, and enucleation of the tumor with the fingers and handle of the scalpel, paying no attention to hemorrhage, however profuse, but going on as rapidly as possible to the base of the tumor, and compressing the thyroid arteries. 4. Transfix the pedicle from below upwards with a blunt curved needle armed with a double ligature, and tying each half, or, when practicable, dividing the pedicle into as many portions as there are main arterial trunks, and tying each half separately, and then remove the gland.

In 1871 Dr. P. H. Watson brought under the notice of the profession a mode of operating which he regarded as being rapid and nearly bloodless. For its accomplishment he laid down the following rules: 1. The external incision should be very free, extending from the larynx to the notch of the sternum if the tumor be large and spreads widely in a lateral direction; the vessels, arterial and venous, in this incision should be secured as they are divided, to avoid any obscuration of the parts through oozing. The fascia and skin should be equally opened. 2. The investing delicate fascial sheath of the thyroid gland should be left undivided until the mediate ligature of the vessels included in their fine cellular sheath has been effected. 3. Ligature of the thyroidal vessels in their sheathing cellular envelope by means of a double ligature. The cellular capsule is now opened in the middle line and the attachments, which still retain the goitre, are divided by blunt-pointed scissors.

The advantage of this method is, that the vessels of the gland, which have very frail walls are secured inside their sheath, and do not, therefore, so readily tear. On the other hand, the tendency of the ligature to slip after being secured is increased.

I would here remark that the so-called capsule of a bronchocele varies much in appearance and density; in fact, in one case operated upon by myself there was no semblance of such a texture.

Sir Joseph Lister has added to this procedure by applying additional ligatures by transfixing the pedicle in several places. By so doing the stump that is left is tied in separate bundles behind the ligature taking in the whole thickness. This plan adds somewhat to the time occupied in the performance of the operation, but the restraint of hemorrhage is certain. Even if the main ligature should slip at one or more of the secured angles of the tumor, the pedicle being split up into so many strands by accessory ligatures, no important bleeding can occur.

In a girl, aged thirteen, with a very large goitre, operated upon by the late Professor Spence when I was his house-surgeon in the Royal Infirmary, Edinburgh, at an early period of the operation a double ligature was carefully passed under the isthmus between it and the trachea, tightly tied, and the structure divided between the two. This simplifies matters, by allowing each lobe of the gland to be taken away separately, and the trachea is less likely to be injured.

Professor Lücke, of Strasburg, in his work on *Diseases of the Thyroid Gland*, advocates a median incision, and the pedicle, which is described as being rounded or plate-like, is to be ligatured *en masse* if thin; should it be thick, it is to be subdivided.

The late Professor von Bruns, of Tübingen, who ranks among the most successful of modern operators, directs his skin incision along the anterior border of the sterno-mastoid muscles. If more space be needed at

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the lower extremity of this, a transverse cut is made across the neck; double ligatures are applied to the pedicles before removal.

III. *Dangers to Life During and Subsequent to Operation.*—In whatever manner the thyroid gland be extirpated, the operation cannot be undertaken without numerous risks. These may be (*a*) during the operation, or (*b*) during the after-progress of the case.

(*a*) Dangers during the operation: 1. "Hemorrhage" is the first danger that needs attention. This in the earliest efforts was the most usual cause of death, and so principally feared. By securing, before the actual ablation, the isthmus and four angles of this gland this danger has been minimized. 2. "Wounding the Trachea." This is especially liable to happen when the isthmus is adherent to the rings of the windpipe, and if the attempt be made to take away the whole gland at once. Should the trachea be opened, a tube must be at once inserted. The accident is one that tells considerably against a successful issue. 3. "Injury to the large nerve trunks." From the situation of the various nerves it would almost seem impossible to injure them, but cases are on record in which the accident has happened. In one of Dupuytren's, the operation having been completed, the patient had great difficulty in swallowing, rapid and difficult respiration, and constant sickness. Death took place in thirty-five hours. The post-mortem showed that the right recurrent laryngeal nerve was cut and ligatured. In another case of Klein's, during the operation the patient lost his voice and had dysphagia. In three weeks, however, the voice recovered somewhat, but ever afterwards remained a deep bass. In a patient of Billroth's, who died soon after the completion of the ablation, at the autopsy it was discovered that the recurrent laryngeal nerve was included in the ligature securing the inferior thyroid artery. Injury to the recurrent laryngeal may perhaps be accounted for by the fact that, in a large bronchocele, the trachea is frequently compressed and displaced. Hence the nerve in its passage to the larynx is more exposed than normal, and from its close connection with the artery is liable to be ligatured or divided when the bloodvessel is dealt with. 4. "The entrance of air into the large veins." This is an accident extremely likely to happen, as the veins are generally much enlarged. Double ligatures should, therefore, always be applied before any large venous trunk is severed. In a case of Klein's, where this accident happened, the patient died immediately. In one of my own, in which the internal jugular was torn low down on the left side just as the operation was being concluded, the man succumbed in half an hour.

(*b*) Dangers during the progress of the case, the operation being concluded: 1. "Shock." A considerable degree is always present in this operation, as the procedure is a lengthy one, and a clean dissection of the anterior portion of the neck is made; but when the patient has once rallied the after-progress is often rapid and satisfactory. 2. "Secondary hemorrhage." This is least likely to take place when Sir J. Lister's method of securing the vessels is adopted, for then the various vessels are secured by numerous ligatures. In one of Greene's cases operated upon by his own plan, the wound was kept open until reaction was fully established, and in a quarter of an hour the inferior thyroid artery escaped from its single ligature and spurted with great violence, necessitating transfixion of the pedicle with a tenaculum, and the application of another ligature. On the tenth day bleeding again occurred, and, in spite of digital pressure, continued for seventy-two hours, but then stopped. Eventually recovery took place. 3. "Suppuration." This following ablation of the gland may prove fatal in two ways: (*a*) By implicating the surrounding cervical textures and giving rise to œdema glottidis. In a fatal case of Mr. Spence's, occurring eighteen hours after the operation, post-mortem examination showed that an œdematous condition of the glottis existed even before suppuration had commenced. (*b*) By extension into the mediastinum, causing thoracic complications. The use of antiseptics in some form or other will do much to prevent this. 4. "Necrosis of the rings of the trachea." This is only likely to arise in bronchoceles very adherent to the windpipe. In three cases in which it happened, one was due to the application of Maisonneuve's constrictor, and another to the free application of a strong perchloride of iron to arrest hemorrhage. 5. "Septicæmia and pyæmia." Antiseptics lessen these dangers. In five of Billroth's fatal cases death occurred from blood-poisoning. In a private communication my former teacher tells me that if antiseptic precautions had been used in all his cases the mortality would have been greatly lessened. 6. "Syncope." Up to the present time this, as far as I can ascertain, is an unrecognized danger. On August 14, 1884, I removed a bilateral goitre, weighing nine ounces, from a girl, aged eighteen, with very marked symptoms. The patient rallied well from the operation, and two hours after its completion expressed herself as being comfortable. A quarter of an hour later she died suddenly in a state of collapse. The post-mortem examination showed that all the angles of the gland were securely ligatured. As far as could be ascertained after careful search the pleura was intact. However, both lungs were found to be completely collapsed. The cardiac cavities were contracted and empty. In the posterior mediastinum bubbles of air were seen; these could readily be traced down the spine into the abdomen. The subperitoneal fascia there was found to be emphysematous, and the fascia in the iliac fossa was greatly distended with air. Death was, I presume, due to syncope caused by the presence of air, which had gained access during the separation of the thyroid gland from its capsule and surrounding tissues.

My personal experience of thyroidectomy is limited to twelve cases. From these I would make the following deductions: 1. The operation is a grave one, and should not be lightly undertaken, especially as our knowledge of the exact functions of the gland are at present somewhat hazy. 2. I is better to remove one lobe at a time rather than to attempt excision of the whole gland. It is probable that such a procedure will sufficiently relieve all urgent symptoms. 3. That if a capsule exists it should be opened in the median line, and that the angles of the gland should be firmly secured before the goitre is enucleated; that it is best to ligature first the angle of the gland containing the superior thyroid artery, next the isthmus, and to take away

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the gland from above downwards, ligature of the inferior thyroid angle being one of the final steps of the operation. 4. That stout carbolized silk is the most reliable material for securing the pedicles. 5. That antiseptic dressings in some form should be employed. 6. That the success of the operation will probably increase with the experience of the operator.—*The Lancet*, July 18, 1885.

THE REGULATION OF PROSTITUTION.—DR. MARTINEAU, at a recent meeting of the Société Obstétricale et Gynécologique de Paris, presented the following conclusions relative to the control of prostitution. He considers as necessary—

1. To keep surveillance over, to restrain, and repress by laws and regulations, old or new, the practice of clandestine prostitution, which is more active in the propagation of syphilis than open, regulated, and legalized prostitution.

2. To compel from legalized prostitutes more frequent medical examination—every three or four days.

3. To suppress medical visits at the residence of prostitutes, except in certain determined cases.

4. To increase the number of dispensaries and of physicians in this service.

5. To suppress the infirmary of the prison Saint-Lazare for legalized and clandestine prostitutes affected with syphilitic disease.

6. To create a special hospital for legalized prostitutes, the hospital of Lourcine being reserved for clandestine prostitutes.

7. To create in the hospital a special service for suspected patients.

8. That the hospital be apart from police supervision, and be managed by the municipal authorities.

9. That the physicians of the dispensary be appointed by competitive examination.

10. That medicine and baths be given to syphilitics in outside consultation with the hospital.

11. An apartment reserved in the hospital specially for women under criminal charge when suffering from venereal disease.

12. To make visits to the hospital obligatory to every prostitute as soon as she finds herself diseased. These visits will not result in the registry of the woman upon the lists of authorized prostitutes.

13. To retain in the infirmaries of the prisons until completely cured all men affected with venereal disease. This power being devolved upon judicial authority only, based upon a medical certificate certifying the nature of the disease.

14. The suppression of pandering, etc., by rigid laws.—*Archives de Tocologie*, August 1, 1885.

MODES OF POISONING BY SULHURETTED HYDROGEN.—MM. P. BROUARDEL and PAUL LOYE, having observed that workmen poisoned by sulphuretted hydrogen frequently died after having exhibited very dissimilar symptoms, have investigated the modes in which the agent destroys life, and reach the following conclusions:

1. It appears legitimate to distinguish two forms of poisoning by sulphuretted hydrogen.

2. In the first form death is sudden, and seems very clearly due to an action of the gas upon the nervous centres.

3. In the second, death results slowly, and to the nervous phenomena are joined symptoms which seem related with asphyxia.

4. The mode of poisoning varies with the amount of sulphuretted hydrogen present in the inhaled air. A dog, after inhaling five litres of air containing 2 parts to 100, died in two minutes. A second dog died at the end of three-quarters of an hour, after inhaling 100 litres of air, containing one-half of one per cent. of the gas. Absolute quantity of the gas is, therefore, of less importance in poisoning by it than the degree of its tension in the air.—*Gazette Hebdomadaire de Médecine et de Chirurgie*, August 7, 1885.

EXPERIMENTAL RESEARCHES UPON FRACTURES OF THE BASE OF THE SKULL.—WILHELM GREDER, in experimenting upon fractures of the skull, with weights ranging from 200 to 240 pounds, let fall from a height of four feet upon the heads of cadavers, has arrived at the following conclusions:

1. Solutions of continuity of the base of the cranium, so far as concerns longitudinal, transverse, or oblique fractures, should be considered as fissures the result of a species of rupture.

2. The direction of the fissures is parallel to that of the pressure exercised.

3. The extent of the fractures depends upon a great number of conditions, variable in each skull and each experiment, and cannot be supposed to depend only upon the violence of the blow.

The most practical result obtained is that from the direction of the blow, the probable direction of the fracture can be deduced, and consequently determined, the organs receiving and escaping injury. Inversely, the medico-legal expert can deduce the direction from which the blow proceeded according to the direction of the fracture.—*Deutsche Zeitschr. für Chirurgie*, 1885, Bd. xxi. Hft. 5 and 6.

EXPERIMENTS IN BACTERIO-THERAPEUSIS.—PROF. ARNALDO CANTANI, of Naples, in view of the fact that other bacteria are destructive of Koch's tubercle bacillus, has recently made some experiments relative to the therapeutic treatment of tuberculosis by means of the bacterium termo. He first found by experiment that the bacterium termo, whether inoculated, inhaled, or injected, exercises no harmful influence upon the tissues of living animals. He then caused a spray of fluid containing this bacterium to be inhaled by a patient suffering from tubercular disease of one lung, whose sputa contained tubercle bacilli in large quantities, as shown by the microscope, and also by the results of injection practised upon small animals.

These inhalations continued daily for a month, were followed by the rapid improvement of the patient, especially in the local conditions.

The sputa, examined at frequent intervals, were found to become less and less rich in the bacillus tuberculosis, but were full of bacteria termo, and their injection into the lower animals failed longer to produce tuberculosis.—*Centralbl. für die Medicinisch. Wissenschaften*, July 18, 1885.

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MICROBES OF SYPHILITIC ULCERS.—At a meeting of the Académie de Médecine de Paris, held August 4, 1885, M. CORNIL made an interesting *résumé* of the investigations of MM. Alvarez and Tavel upon the microbes of syphilitic ulcers. The report of the investigators is the following:

1. There exists in some of the normal secretions of the body a bacillus, which, up to the present time, has not been pointed out.

2. This bacillus is identical in form and in its behavior with coloring agents with that which Lustgarten has described as the special bacillus of syphilis.

3. It is possible that the bacillus which Lustgarten has found in sections of syphilitic growths and in syphilitic secretions is this common bacillus.

4. Our bacillus is very similar in form to the bacillus tuberculosis, and presents many of the coloring reactions which hitherto have been considered as peculiar to Koch's bacillus, and to that of leprosy.

5. It is distinguished from the bacillus of tuberculosis by being less thick, and of a less granular appearance (conditions difficult to appreciate in a single examination), by its inferior resistance to alcohol, after staining with fuchsine and treatment by nitric acid. It is further distinguished, by its failure to be stained by methyl-violet, according to Ehrlich's method.

6. In the clinical diagnosis of tuberculosis, made by microscopical examination of secretions, these facts should be held in mind.—*L'Union Médicale*, August 6, 1885.

CONGENITAL DEFECT OF THE HEART.—VON ELLENGER, in the *Archiv für Kinderheilkunde*, Bd. vi. Hft. 2, records the annexed congenital defect of the heart. The child in which it occurred was fourteen days old. Impulse of the heart was to the left at the fifth and sixth intercostal spaces, and in the mammary line, with apparent enlargement of the heart in its long axis. The pulse varied between 60 and 76. At all four cardiac orifices an apparent systolic murmur was heard, though no normal heart sound was perceptible. In the interscapular space a murmur was also audible, but insignificant. Intense cyanosis of the face existed, and a pneumonic condition was slowly developed. The cyanosis increased and hemorrhages occurred in various parts of the body. The heart symptoms also became more marked, and death resulted at the age of two months.

Post mortem showed the following: Transposition of the aorta and pulmonary artery; muscular stenosis of the arterial cone; persistence of the foramen ovale, and a pervious condition of the ductus Botalli; defect of the septum ventriculi, and double broncho-pneumonia.—*Centralbl. für klin. Med.*, July 8, 1885.

INCISION OF THE PERICARDIAL SAC IN SUPPURATIVE ENDOCARDITIS.—DR. E. A. MICHAELOFF, in *Medizinskoje Oboerenje*, 1885, No. 5, reports the case of a woman, aged thirty-five years, who entered the hospital with symptoms of suppurative pericarditis.

The liver was enlarged; there were anasarca, albumen in the urine, and general emaciation. Increasing dyspnœa, cyanosis, and weak pulse, together with complete inability to sleep, made puncture of the pericardium necessary. The operation was accordingly done, and the needle introduced at the fourth intercostal space. Puncture resulted in the escape of nearly three ounces of pus, followed by half the quantity of almost pure blood. Inasmuch as improvement continued for only a short time, on the second day an incision was made, four-fifths of an inch in length, close to the sternum and in the region above indicated. After removal of about a quart (two pounds) of blood-colored, bad-smelling pus, the pericardial sac was washed with a solution of resorcin, and drainage established. Immediately after the operation good effects were manifested. the dyspnœa disappearing, and the frequency of the pulse diminishing from 120 to 90. Improvement was, however, only temporary, and the patient died in eighteen hours in collapse. Post mortem revealed the presence of fatty degeneration of the heart, with dilatation, marked right hydrothorax, chronic perimetritis, and a general marasmic condition.—*Centralbl. für Chirurgie*, July 4, 1885.

A CONTRIBUTION TO THE OPERATION OF RESECTION.—DR. EMILE BOUCHEZ, in an original paper on the results of operation for resection, arrives at the following conclusions:

1. The mortality was *nil*, excepting one case, in which it was insisted upon by the patient, although contraindicated by an osteomyelitis of unknown extent.

2. The reëstablishment of general health after the operation was immediate and remarkable. Emaciation gave place to *embonpoint*, and by the second month exercise in the open air was possible.

3. Bony anchylosis and good position in two cases operated on for scrofulous tumor of the knee gave excellent results. In one case an apparatus was necessitated. The result was only passable. In three cases—Arabs—the ulterior results are unknown.

In a case of fungous and suppurating osteoarthritis of the wrist prehensile movements of the fingers are still possible, and the author believes that the periarticular swelling and infiltration of the tissue will disappear with time.

The cases on which these observations are made include three resections of the knee, one of the hip, one of the shoulder, one of the elbow, and one of the wrist.—*Archives de Médecine et de Pharmacie Militaires*, Aug. 1885.

NUTRITION WITH MEAT PEPTONES. — DR. EMIL PFEIFFER, after an experimental study of the value of meat peptones as an article of food, vouchsa es the following conclusions. He says: Both peptones (Koch's and Kemmerich's) possess great value as nutrients. The preparation of Koch has no superiority over that of Kemmerich. On the contrary, the preparation of Kemmerich is better applicable in cases of overfeeding, as also in cases of insufficient nutrition, because it produces in the first a greater residue, and in the second a marked diminution of the nitrogenous loss. Through its greater solubility in water, and on account of its more pleasant taste, Kemmerich's preparation has practical advantage over that of Koch.

The larger doses required of Koch's preparation, and the possible intestinal irritation and diarrhœa thereby caused, will greatly diminish the general use of this peptone.

Kemmerich's meat preparation is well adapted to use *per enemata*.—*Berliner med. Wochenschr.*, July 27, 1885.

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THE INTERNATIONAL MEDICAL CONGRESS.

THE majority of the physicians of the United States who have followed the progress of affairs in regard to the Congress, will probably assent to the following propositions:

1. The Congress is a purely scientific body, having nothing whatever to do with ethics or medical politics.

2. The invitation to the Congress was not given as coming from the American Medical Association, and it was not accepted by the Congress with the understanding that the meeting would be under the special patronage and control of the Association, or of any other medical society.

3. The Original Committee of eight was fully authorized by the resolutions which created it, to add to its membership, and to proceed with the work of organization without special reference to the American Medical Association.

4. The enlarged committee formed by the Committee of eight effected an organization which was satisfactory to the Executive Committee of the International Congress, and which bid fair to make the meeting a great success.

5. The action of the American Medical Association at New Orleans, in refusing to accept this organization, and in assuming control of the whole matter, was discourteous to the Congress, and injurious to the reputation and interests of the medical profession of the United States.

6. This action, and the action of the Committee of the Association, have given rise to great dissatisfaction both in this country and abroad, so much so, that if they are persisted in there is very great danger that the Congress will not hold its next meeting in this country.

7. The honor of the medical profession of the United States demands that through no act of theirs shall the agreement be set aside, by which the Congress at Copenhagen in 1883 was led to accept the invitation to meet at Washington in 1887.

Now in view of these facts what is the duty of the Committee of the American Medical Association?

The so-called proposals for compromise which we have heard of, such as allowing all societies to send members, or even delegates, provided no New Code man is allowed to hold office, will, if adopted, simply make the injustice more glaring, because they are a practical acknowledgment of the fact that the Congress is a purely scientific body, and that medical politics should not enter into its organization—while, at the same time, they introduce politics in the form of an offensive discrimination against some of our best known physicians. Such a proposition, if adopted, would simply prove an additional source of irritation, and do no good whatever.

When we consider the fact that the leading Old Code men in New York meet the New Code men freely in consultation; and that the Editor of the *Journal of the American Medical Association* and Dr. Jacobi, of New York, have been working together as the American Committee of the international organization for collective investigation, it surely needs no argument or illustration to prove that the ignoring of the Code question in the International Congress is in no way derogatory to the dignity of the American Medical Association, or to that of any member of it. This was the view that was taken by the original enlarged Committee, and its wisdom will be agreed to in the future by those who have been most violent in condemning it.

The American medical profession wants to have a large and successful Congress; it wants the leaders of European medicine to be present at it; it wants its own best observers, experimenters, and thinkers to present their work at the sessions, and obtain the honor which is their due; and it is to those who thus participate, and to those only, that the laurels of the Congress will fall.

The members of the new Committee have carried out their instructions, and have tried to organize the Congress; they signally failed at the outset because it was recognized that the reason of its existence was disappointed personal ambition, and because their leaders did not possess the confidence of the profession at large. Over one hundred and twenty-five of the most eminent of their appointees, representing every section of the country, declined to accept office under them. The withdrawal from all official connection with the Congress of such a large proportion of the most distinguished mem-

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bers of the profession in America has had the effect of creating a strong sentiment among the profession in Europe that, unless the arrangements for the holding of the next Congress are placed in the hands of men whose names are an international guarantee of the success of the meeting, the authority of the Executive Committee should be exercised, and the meeting of the Congress in 1887 be held not in America, but in some other country, to quote the language of the London *Lancet*, "in which the medical profession will not find it impossible to combine for international purposes."

Since their appointment by the American Medical Association, the New Committee have learned that the Association has no authority to organize the Congress. Now self-respect, the honor of their country, and their duty to the International Medical Congress, alike demand that they shall decline to continue their work of organization, and that they shall take the straightforward, manly course of declaring that the Association has made a mistake, due to insufficient information and a misunderstanding of the rules and wishes of the Congress, and that they make way for a Committee which shall possess the requisite authority and which can command the respect and support of the profession both at home and abroad.

HOT WEATHER DIETETICS.

IT has been aptly suggested that the relation of a human body to its constituent element is closely analogous to that which a dissected map bears to its parts, each of which must be exactly fitted in its proper place, or else the whole design is rendered imperfect. Doubtless many of the chronic derangements of health which entail so much suffering upon humanity, are due to the incomplete supply, by food, of some minute yet important ingredient, the absence or deficiency of which, like the loss of a correspondingly small portion of the divided map, mars the perfectness of the entire structure.

Not only must the human organism be built up in the first place, with its necessary components in precisely their requisite quantity and arrangement, in order to constitute a complete whole, but for the further maintenance of health these essential elements must be continually replaced as they become effete, from the constituents of our diet, in exactly the right proportion. Hence, the vital necessity imposed upon us all, of so regulating the food we eat, in correspondence with varying external conditions of the environment, as to fulfil this law which ordains that for every atom of tissue worn in the vital processes, another atom must be conveyed into the system as food, dissolved in the digestive apparatus, and transmitted in a liquid form to the blood, in which it is carried to the remotest recesses of the system, and assimilated into the tissues during the unceasing operations of repair.

If mankind were constantly subjected to the action of the same temperature and humidity, of the same amount of exercise, of similar periods of repose, and of other similar minor modifying influences, a standard bill of fare, adapted to all divisions of the year, might, perhaps, be agreed upon. But since the ever-varying conditions of existence continually change the amount and kind of tissue waste, and as the different seasons roll round in their appointed course, it is evident that naught but a watchful compliance with the varying physical requirements can secure the most appropriate renewal of life, and, therefore, the most prolonged retention of perfect bodily health.

If we consider the alterations which elevation of temperature renders judicious in regard to the supply of ingesta for the human organism, we find that one of the most important modifications of diet, which is advisable during the summer months, is a reduction of the fatty or heat-producing, and of the nitrogenous or muscle-forming materials, in correspondence with the diminished activity in the processes sustaining the animal temperature. In cold weather the loss of caloric is so rapid, that large quantities of carbonaceous matter must be burnt up, in the innumerable, tiny, atomic stoves of the body, to preserve the standard heat of 98.4° Fahr. But when the external air approximates to this temperature, radiation and conduction proceed, of course, much less speedily, and such a relatively great amount of fatty and nitrogenous food being uncalled for and unconsumed, overloads and oppresses the digestive apparatus. The experience of Englishmen in India is very conclusive upon this point, and one of Becquerel's excellent rules for visitors to hot climates, is that they should scrupulously confine themselves to a comparatively scanty and unstimulating diet, avoiding in great measure such articles of food as fat meat, eggs, cheese, etc., during the continuance of the warm season.

On the other hand, just as an excess above the average amount of heat-producing elements should be partaken of in winter, so an augmented quantity of watery fluids, and of succulent fruits or vegetables, ought to be ingested during the summer. A very important part of the wonderful heat-regulating function of the organism is accomplished by the elimination of moisture from the skin and lungs, which, in the process of vaporization, carries off the excess of heat, so that an abundant supply of water, either in food or drink, is ordinarily one of the imperative necessities throughout the summer months. Hence the ingestion of cool water, in small quantities frequently repeated, of mildly subacid fruits,

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such as strawberries, blackberries, peaches, or melons, and, under appropriate restrictions, of such vegetables as fresh potatoes, corn, tomatoes, raw cabbage, celery, and similar articles of diet, is as a rule highly conducive to health. Few persons indeed realize the vital necessity which exists during exposure to high temperature, for a very frequent and systematic imbibition of fluid, to keep up this abundant flow of perspiration from the skin, and we feel assured that had this urgent demand for cool water been properly understood and duly complied with, such an extraordinary mortality from "sunstroke" during the late heated term, of forty-seven fatal cases in a single week, would not have appeared in our death-register. The value of a continuous supply of small draughts of water, as a prophylactic against sunstroke, was often illustrated in the late war during the summer marches of the Army of the Potomac. Dr. Smart tells us, "if the water in the canteens lasted until the next opportunity of refilling them, so that ingestion and transudation were equalized, the men pushed along, faint from fatigue perhaps, but in no danger from sunstroke. If on the other hand the supply failed, and the skin became dry, danger from sunstroke was imminent."

Many of our summer fruits, consisting, as they frequently do, of from seventy to ninety per cent. of water, constitute delicious substitutes for frequent draughts of aqueous fluid; but, even the fruits and vegetables which usually prove wholesome, are exceedingly apt, if freely partaken of when they first make their appearance, and before people have grown accustomed to their use, to cause disorder of the bowels, and, as is well known, sometimes to set up violent, perhaps fatal, cholera morbus. Whilst, therefore, it is very important to approach gradually free indulgence in the feast of luscious fruits which nature bountifully provides for us even in ordinary seasons—the chance of a cholera visitation should render us particularly cautious this year, because diarrhœal disturbance not only makes an individual far more liable to contract cholera, should that epidemic disease synchronously prevail, but, to the usual danger, adds the liability, which cases of cholera developing from a preëxisting diarrhœa possess, of being far more apt to prove intractable and fatal. Hence, should fruit and vegetables display a tendency to cause looseness of the bowels during our heated term, which often runs far into September, the necessary amount of liquid to supply the demands of the heat-regulating apparatus of the organism ought to be imbibed in the form of well-boiled and filtered water, cooled with pure ice, of weak iced-tea, or of some analogous beverage.

Of course, if Asiatic cholera, in spite of all our precautions, actually does make its outbreak this year upon the North American continent, prudence dictates that every article of diet consumed during warm weather should be purified from the living germs of the comma-bacillus by heat—that is, by exposure for at least half an hour to the temperature of boiling water, *as short a time as is practicable before it enters into the human stomach.*

PHYSIOLOGICAL ALBUMINURIA.

WHETHER or not, in strict accuracy, there be such a thing as physiological albuminuria, there can be no doubt that it occasionally happens that albumen is present in the urine of those who exhibit no other symptoms whatever of renal disease. There are three separate varieties of this condition: The albuminuria of the newborn, which approximates more nearly than any other form to a true physiological albuminuria; the albuminuria of adolescence; and the albuminuria of otherwise healthy mature men.

First, as to the albuminuria of the newborn. Virchow, Dorn, Martin and Ruge, and Hofmeier, have all called attention to this condition. Hofmeier says it is almost invariably present in the newborn. According to Ribbert, albuminous urine is secreted by the fœtus, and disappears a few days after birth. It is explained by Ribbert that in the fœtus and newborn child the epithelium which covers the glomerule is not flat and invisible as in the adult, but cubical, and the cells are protoplasmic, more like gland cells, and, like the latter, they separate albumen, while the office of the flat endothelial cells in the adult is to retain the albumen and to permit the water, only, of the blood to filter out.

Rosenbach, on the other hand, suggests that at the time of birth many corpuscles disintegrate, and that the albumen thus liberated, being superfluous, is secreted by the kidneys and appears in the urine. Senator, in *Berliner klin. Wochenschrift* for April 20, 1885, is inclined to attribute the condition to a number of causes, of which the most important is the sudden increase of vascular pressure which takes place in the glomeruli at the moment of birth. At the same time begins an abundant loss of water from the skin and lungs, as the body passes from the influence of the surrounding amniotic liquor into that of the atmosphere. These, with the increased amount of albumen due to the disintegration of blood corpuscles already referred to, and perhaps also an increased proportion of salts, are sufficient to cause the albuminuria, or to increase that already existing, during fœtal life. Within the first five days of life, however, the conditions change. The loss of weight which immediately succeeds birth, is first compensated, then the weight goes on increasing, the blood becomes more watery, the urine increases in quantity and is reduced in specific gravity from 1010 to 1006 and 1004, and the albuminuria disappears.

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The albuminuria of adolescence less justifies the term physiological. Occurring more particularly in young men from fifteen to twenty years old, it is not always unassociated with other symptoms. There are often rapid growth and development, and a feeling of debility not infrequently accompanies these. It is even less easily explained than the albuminuria of the newborn. The large demand made upon the albumen of the blood at this period of life for the purposes of growth and development, produces a state the reverse of that assigned as a cause in the newborn infant, a thinness of the blood. This may be excessive, and lead, especially in connection with a feeble propulsive power of the heart and a defective nutrition in the kidney, to a transudation of albumen-containing fluid. Doubtless some of the causes which will be next mentioned as responsible for the albuminuria of adults, may also operate with the adolescent youth.

The last variety deserves, least of all, the term normal albuminuria, although it is so often unaccompanied by any other symptoms of ill-health. An increasing number of such cases is daily reported, but although, according to Senator, albumen is found in the urine of from ten to twenty per cent. of apparently healthy adults, we insist that it cannot be regarded as a normal phenomenon. Certainly he who has it, is not so well off as he who has it not, and while active treatment may not always be judicious, yet there are many acts in life which may be performed without risk by one in whom the condition does not exist, but which should be avoided by the subject of such an albuminuria.

These albuminurias are always small, and sometimes accompanied by a few hyaline casts. Among the conditions sometimes associated with them, and which may be said to be more or less responsible for them, are great muscular activity, the ingestion and digestion of highly albuminous foods, mental excitement, and cold bathing. Hence such albuminurias are often intermittent. They may be sometimes due to vaso-motor derangements, but the instances in which these causes can be pointed out as responsible are very few.

The effect of cold baths in producing albuminuria has scarcely excited sufficient attention, and the fact that they do produce it is too often overlooked by physicians in their advice to patients concerning bathing. Long-continued immersion, of course, tends more strongly to produce it, and an existing albuminuria, whether it be of the kind called normal, or the result of recognized renal disease, emphatically and totally contraindicates cold bathing.

CONDUCT OF THE THIRD STAGE OF LABOR.

PROCHOWNICK communicates to the *Centralblatt für Gynäkologie* a paper upon the management of the after-birth period. Referring to the recent criticisms of Credè's method, he states that in none of these was included the objection, which he regards as the most important. This is the pain that the method causes, and the unwillingness of some patients to submit to it; while, it may be urged, the majority of women would not complain, yet many nervous, sensitive women would. Our own opinion, on the other hand, is, that this suffering, usually, is not great—certainly not as great as that which was endured for hours in the previous stages of labor—and is so brief that few object.

Prochownick gives his own method as follows: Immediately after the birth of the child the flat hand is laid upon the woman's abdomen, and, after the lapse of a few minutes, slight friction is made upon the fundus for the exciting of energetic after-pains. After the third uterine contraction has taken place, he asks the patient to flex her lower limbs, placing the soles of her feet against the foot-board, and make an expulsive effort, which in primiparæ raises the accoucheur's hand, which frequently in the parous sinks down between the recti muscles, that have been separated by pregnancy. If the placenta is not expelled, this must be repeated once or oftener, even to the seventh contraction. He states that in only one case did he have to wait longer than the seventh contraction. He is favorable to the use of ergot at the close of, or just after, the second stage of labor.

We believe the hand which is applied to the abdomen should not be flat, but concave—the manual concavity fitting to the uterine convexity—for then the uterus is defined, limited, a larger surface embraced, and any relaxation of the organ prevented, or at once recognized and remedied. Besides, a flat pressure, acting only upon the anterior wall, may, if this be greatly relaxed, so depress it as to prepare the way for uterine inversion. Certainly the part of Prochownick's plan which makes the woman a voluntary participant in the expulsion of the placenta, is good.

REVIEWS.

THE CLIMATE OF CANADA, AND ITS RELATIONS TO LIFE AND HEALTH. By WM. H. HINGSTON, M.D., D.C.L., etc., Surgeon to the Hôtel-Dieu, Professor of Clinical Surgery Montreal School of Medicine. Pp. 200. Montreal: Dawson Bros.

IT is not often we are so agreeably disappointed as we have been in this book. Instead of a mass of dry statistics and meteorological tables, which the title had led us to expect, we found an exceedingly interesting and instructive volume, in which the weary details of the observatory have been "digested and assimilated" and interwoven with so many and varied observations on geographical, hygienic, social, and ethnological questions, that the whole forms a contribution which will be of great value to any one seeking information about

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Canada. Part I. deals with the physical geography and the climate, considered under the four seasons; Part II. with the relations of climate to health and life. In the latter the prevalent diseases and mortality are carefully reviewed. Perhaps the most interesting sections are those referring to the natural history of the French Canadians, the remarkable fecundity of the women, and the vigor and endurance of the men. Tables are given of the height, weight, and lumbar strength of the English and French-Canadian medical students, which show the former to be somewhat taller, but not so strong as the latter. It is a pity that fuller anthropometric observations have not been made, as it would appear that Canada offers a particularly suitable place in which to study the development of the English, Irish, and French races. Conclusions from the examination of a few hundred of individuals are not worth much, as can readily be seen by comparing the author's older and more recent tables. In the latter the lumbar strength of the British-Canadian students was greater than in the French-Canadian of the first series, and there seems to have been an extraordinary rate of increase in lumbar strength during the twenty-five years which elapsed between the observations, an average of 53 pounds in the case of the English and 48 pounds in the French students.

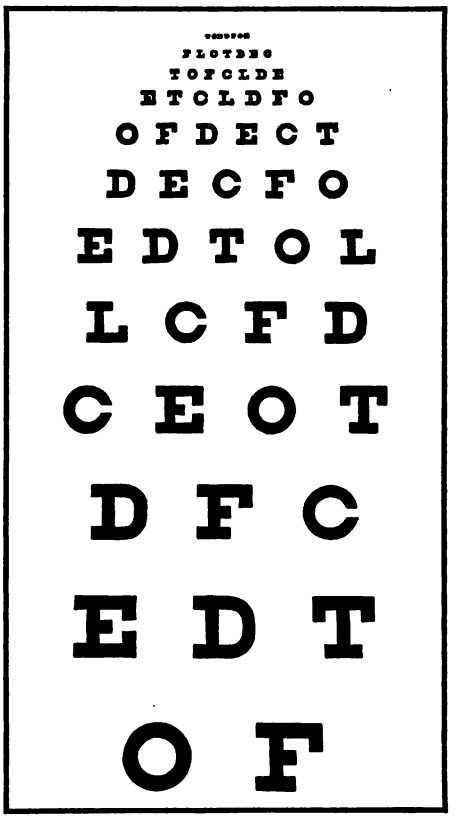
The work contains much matter of general interest, and is written in such a pleasant style, and contains so many references to social and racial problems, that it is certain to find a wide circle of readers. A table of contents and an index would have increased the value of the work.

NEW INVENTIONS.

A NEW SERIES OF METRIC TEST-LETTERS FOR DETERMINING THE ACUITY OF DIRECT VISION FOR FORM (BASED UPON SNELLEN AND DE WECKER).[1]

BY CHARLES A. OLIVER, M.D.,
ONE OF THE OPHTHALMIC AND AURAL SURGEONS TO ST. MARY'S HOSPITAL, PHILADELPHIA.

A SHEET of test-letters was exhibited which showed advantages not possessed by any other single form of test-card; these are as follows: *First, the Letter.* The Snellen basis of letter formation is accurately preserved throughout. Block letters are used. Each letter embraces a square area included in a five minute angle for both height and breadth, each stroke is one minute angle in width, and each spacing in the breaks and openings is of one minute angle or more. The nine letters C, D, E, F, L, O, T are used, as they alone fulfil the above conditions. *Second, the Sequence.* Four letters are composed of vertical and horizontal strokes and three are made of curved ones, thus giving a series which contain radii at all angles. Nearly every line has a combination of such strokes, so disposed as to make a letter of vertical and horizontal strokes follow a letter of curved ones; this order being rendered incomprehensible to the patient by a system of irregular



placing. Each line thus serves as an important adjuvant in the detection and the correction of astigmatism. *Third, the Interspace.* Each letter is surrounded by a free space which is greater, or at least equal, to its own area. The reasons for this are obvious. *Fourth, the Gradation.* To avoid unnecessary mental effort by the use of irregular fractions and to render computation quick, $\frac{5}{5}$ instead of $\frac{6}{6}$ has been assumed as $\frac{1}{1}$. The order is as given below.

This scale was partially made use of by De Wecker, but unfortunately it never gained sufficient popularity to be universally employed. The advantages are great, and can be compared with the superiority that the decimal system of coinage possesses over other methods of money valuation. *Fifth, the Reverse Order.* This arrangement saves time by the lack of necessity of the patient reading many letters before the proper line is arrived at, and allows a more correct answer, by reason of the eye not becoming fatigued.

$\frac{1}{2}$,	$\frac{1}{1}$,	$\frac{3}{4}$,	$\frac{1}{2}$,	$\frac{1}{3}$,	$\frac{1}{4}$,	$\frac{1}{5}$,	$\frac{1}{6}$,	$\frac{1}{7}$,	$\frac{1}{8}$,	$\frac{1}{9}$,	$\frac{1}{10}$.
$\frac{\text{II}\frac{1}{11}}{\text{V}}$,	$\frac{\text{V}}{\text{V}}$,	$\frac{\text{V}}{\text{VII}\frac{1}{11}}$,	$\frac{\text{V}}{\text{X}}$,	$\frac{\text{V}}{\text{XV}}$,	$\frac{\text{V}}{\text{XX}}$,	$\frac{\text{V}}{\text{XXV}}$,	$\frac{\text{V}}{\text{XXX}}$,	$\frac{\text{V}}{\text{XXXV}}$,	$\frac{\text{V}}{\text{XL}}$,	$\frac{\text{V}}{\text{XLV}}$,	$\frac{\text{V}}{\text{L}}$

[1] Abstract of a paper read before the American Ophthalmological Society, July 15, 1885.

The cards are manufactured in the following manner: The size of No. L type is estimated, and India-ink sketches of the seven selected letters are drawn to that

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scale. Photographic reductions to the various chosen sizes are obtained, Reverse phototypes are made of each letter: these are tacked on cardboard in the order as they appear on the regular card, and are rephotographed and rephototyped to the same size.[1]

Copies may be obtained from the Messrs. J. W. Queen & Co., of No. 924 Chestnut St., Philadelphia.

1507 LOCUST ST.

NEWS ITEMS.

MONTREAL.

(*From our Special Correspondent.*)

THE SMALLPOX EPIDEMIC.—During the last month smallpox has increased enormously. It is confined chiefly to the French part of the city, and the deaths that occur are almost altogether among the French. They neither vaccinate nor take any precaution to avoid infection, many even exposing their children to the disease intentionally. As the disease is sent by "*Le bon Dieu*," they say, of what use is it to take any precautions. In the French parish church, the other day, was a large meeting of people to pray God that the scourge might be removed, and on that occasion the officiating priest distinctly told the people that the smallpox was sent by the Deity on account of the sinfulness of the people. He called on them to repent and lead better lives, as the only means of staying the disease, but not a word was said of vaccination or other means of prevention. Although there is a great deal of smallpox here, the reports outside are very much exaggerated, and the panic is quite out of proportion to the extent of the disease. The death of Sir Francis Hincks from smallpox, a few days ago, has done more to arouse the people to a sense of their danger than would the death of a hundred insignificant individuals.

There are probably at present in the city about 500 cases of smallpox—not as much as there was five or six years ago. The civic hospital, which only contains 50 beds, is full, of course. The deaths for the past month have been over 100, and, with two or three exceptions, all amongst the French. There is no doubt, however, that the disease is increasing, and the health authorities are waking up to the fact. Public vaccinators have been appointed, and all the large warehouses and manufactories are compelling their employés (who are chiefly French) to choose between vaccination and dismissal. The English-speaking people are flocking to their physicians to be vaccinated, and it is difficult to get sufficient lymph to supply the demand.

Amongst the French there is, however, little stir, and but little is being done in the way of vaccination, except with those connected with the large establishments and manufactories, which are controlled by Englishmen and English capital. The French physicians are very lukewarm about the benefits of vaccination, and not a few are actively opposed to it. Unless the Roman Catholic Church takes up the subject and preaches vaccination and isolation to its people, the smallpox will remain with us till it wears itself out, in spite of the efforts of the health board and the English-speaking population. For four years we have been free from the disease, and the amount of virgin soil the disease will have to work on may be imagined.

FAITH CURES.—As usual at this time of the year, pilgrimages to St. Anne de Beaupré, below Quebec, are very numerous. Every pilgrimage is, of course, accompanied by priests and pious physicians, and many cures result from the prayers of the faithful before the shrine. As a rule, these cures are in hysterical girls, and are not much to be wondered at. In fact, for certain forms of hysteria in pious young girls, when other methods fail, a pilgrimage to a holy shrine, or a visit to the faith conventions, is often attended with marvellous results. I often wonder that this remedy is not mentioned in our standard works on therapeutics. The last pilgrimage to St. Anne de Beaupré accomplished, strange to say, only one cure, and that not a hysterical one. It appears that a boy who had for years been unable to walk without crutches, and who had had "running sores" in his leg, on visiting the shrine threw away his crutches, and the sores healed up instantly, and he was able to walk. This cure was certified to by several French physicians, who said that not only were the sinuses healed, but that in the healing the linen that covered them was thrown into the sinus and was with difficulty afterwards separated. On coming to the city, the newspaper reporters got hold of the case and asked a physician of repute to examine the boy for them. He did so, and found the case was an old one of hip-joint disease with ankylosis, that no doubt the patient did shuffle along in a way without his crutches, but that he could have done so had he tried before he went to St. Anne, as there was nothing to prevent it. As to the sinuses, some were healed certainly, but others were still discharging thin, watery pus through small openings, and that the disease still existed. Why should the good St. Anne not do her work more thoroughly? is the question asked by the wicked sceptics.

NEW BRUNSWICK MEDICAL SOCIETY.—The fifth annual meeting of this Society was held at Fredericton, on July 21st and 22d, the President, Dr. Walker, in the Chair. The following were elected officers for the ensuing year:

President.—Dr. P. R. Moore, of Sackville.
First Vice-President.—Dr. Coulthard, of Fredericton.
Second Vice-President.—Dr. Thorne, of Havelock.
Secretary.—Dr. Musgrove, of Carleton.
Corresponding Secretary.—Dr. Bruce, of St. John.
Treasurer.—Dr. D. E. Berryman, of St. John.

HOW CHOLERA SPREADS IN SPAIN.—*The Medical News*, Madrid, August 4, states that the Commission recently sent into the infected districts of Spain report that in all the villages they were able to visit they found the same clinical characteristics of the disease; that in the towns supplied with water from springs or wells cholera either did not prevail at all, or to a very limited extent, while in the towns supplied with water from streams the disease was very destructive, the water being contaminated by the washing of the clothes of cholera patients.

[1] Reading-types based upon the same plan are now in the process of construction.

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FURTHER DECLINATIONS OF OFFICE IN THE CONGRESS.—We are informed that Dr. James F. Hibberd, of Richmond, Ind., has declined to accept the Vice-Presidency of the Section of Physiology, that Dr. J. H. Wythe, of San Francisco, has declined the office of Councillor in the same Section, and that Dr. Henry D. Noyes, of New York, has declined the Vice-Presidency of the Section of Ophthalmology.

THE REMOVAL OF DR. L. C. LANE FROM THE VICE-PRESIDENCY OF THE CONGRESS.—In refutation of the charge made at the Chicago meeting of the New Committee, that Dr. L. C. Lane, of San Francisco, was an advocate of the New Code, the *Pacific Medical and Surgical Journal* publishes two letters which it has received, and from which we make the following extracts.

Dr. W. P. Gibbons, President of the Medical Society of the State of California, says:

"I deem it proper to state that I know of nothing, nor have I ever heard aught, either publicly or privately, that justifies this implication.

"Furthermore, after a personal acquaintance of over twenty years, and an intimate knowledge of his professional career during this time, it affords me pleasure to state a belief which I have long entertained, in common with the mass of physicians on the Pacific Coast, that his labors as a physician and a public teacher have been associated with an untarnished reputation, and that he is deservedly entitled to be placed among the foremost of those who have advanced the science of regular medicine, and aided in building up its superstructure on the western slope of the continent."

Dr. J. Grey Jewell, President of the San Francisco County Medical Society, writes:

"No man has ever been, or could be, more loyal to regular medicine and the old code of ethics than Dr. L. C. Lane. The charge to the contrary recently made against him at Chicago was a painful astonishment to me, as well as to the leading members of the medical profession here, with whom I have conversed freely on this matter."

The *Pacific Medical and Surgical Journal* makes the following comment:

"Dr. Lane is in good standing in the State Society, and the State Society with the American Medical Association, and therefore to say that he was a 'new code' man can only have been used as an excuse to prevent his reappointment. A removal such as this, for such a reason, will produce an ill feeling among the profession of California, which will only help in preventing the meeting of the Congress upon American soil being an honor to America."

HOME OPINIONS ON THE CONGRESS OUTLOOK.—The destructive work of the American Medical Association, and the reconstructive work of its new committee, do not appear to be gaining favor with the profession at large.—*Louisville Medical News*, August 15.

The outcome must be either a final refusal of the Congress to meet in this country, or a meeting which is a practical failure.—*Northwestern Lancet*, August 15.

Without doubt, the American Medical Association is the representative of the profession, and therefore the Congress convenes under its auspices; but it should be borne in mind that this latter body is an assembly of medical men, and not a convention of societies, and is not therefore bound by any code of ethics.

The profession in every country has its own rules for the guidance and government of its members, and therefore the code of the American Association cannot be taken as the criterion for the fitness of any man to occupy a seat in the Congress.—*Pacific Medical and Surgical Journal.*

A BRITISH OPINION ON THE CONGRESS DISSENSIONS.—In the United States the organization of the profession is purely democratic; there is no common link like that of our Royal Colleges; no recognized headship like that of our President of the College of Physicians, or our President of the College of Surgeons. According to the very political theory on which the State is founded, every man has as good a right to lead as any other, if he can only get that right admitted by his fellows, and for that purpose one vote is as good as another. Distinction in science and reputation abroad supply no reason to a practitioner in Texas or Colorado why he should follow a Wendell Holmes or a Weir Mitchell, in preference to a Shoemaker or a Beverly Cole. Hence a revolt of the "rump" in the United States threatens to prove a much more disastrous affair than it would be in England, and hence we especially ask our readers' sympathy for those well and widely known American practitioners, whose title to lead their profession is admitted everywhere except in the ruder and remoter States of their own country.

We have had an opportunity of seeing several letters from distinguished American practitioners, and they all concur in expressing the most bitter grief and disappointment at the pass to which their profession has been brought. In these letters we have met with scarcely one word of anger against the dissidents who have rudely torn up the first programme of the Congress. Indeed, if we may say so without impertinence, the spirit in which the "leaders" of the American profession—for we will still venture to call them so—have met the recent crisis, is one which reflects the highest possible credit upon them. We hardly know which to praise most: their patient suspension of action until the Chicago meeting had confirmed the spirit of the proceedings at New Orleans, or their swift and unanimous protest and withdrawal from the Congress when definite action was at length called for. The only hope for the Congress—the only possibility of maintaining the dignity of the profession—lay in such firm and united action on their part, and the effect of this action has been so favorable that there already appears to be a much more hopeful feeling in the States as to the prospects of a peace with honor. The organizers of the revolt are meanwhile making frantic efforts to prevent further resignations, and are even said to contemplate throwing over Dr. Shoemaker, on the score of his supposed unpopularity. But we may take it that no concessions on their part will be accepted short of unconditional surrender and full recognition of the authority and acts of the original committee. These are the essential preliminaries to the holding of any International Congress at all, and every day increases the prospect of their general acceptance. The sooner they are accepted, the better. There will then be still two

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years in which to bury the hatchet, two years in which to prepare a Congress which shall "whip creation." We had all made up our minds for that, and shall be disappointed with anything less.—*The London Medical Times.*

THE NEW COMMITTEE ON THE ORGANIZATION OF THE CONGRESS AND THE ORIGINAL COMMITTEE.—The following lists are published in compliance with a number of requests which have been received for information as to the respective membership of the two committees:

The New Committee.	*The Original Committee.*
J. W. S. Gouley, New York.	Austin Flint, New York.
A. H. Wilson, South Boston.	Henry I. Bowditch, Boston.
H. F. Campbell, Augusta, Ga.	H. F. Campbell, Augusta, Ga.
E. P. Cook, Mendota, Ill.	N. S. Davis, Chicago.
J. W. Dupree, Baton Rouge.	T. G. Richardson, New Orleans.
Beverly Cole, San Francisco.	Levi C. Lane, San Francisco.
J. V. Shoemaker, Philadelphia.	Alfred Stillé, Philadelphia.
John S. Billings, U. S. A.	John S. Billings, U. S. A.
John M. Browne, U. S. N.	John M. Browne, U. S. N.
Robert Battey, Rome, Ga.	Robert Battey, Rome, Ga.
J. W. Parsons, Portsmouth, N.H.	Clarence J. Blake, Boston.
S. C. Gordon, Portland, Me.	Henry P. Bowditch, Boston.
A. Y. P. Garnett, Washington.	Samuel C. Busey, Washington.
W. C. Wile, Sandy Hook, Conn.	James R. Chadwick, Boston.
L. P. Bush, Wilmington, Del.	J. M. Da Costa, Philadelphia.
R. D. Murray, Florida.	John C. Dalton, New York.
X. C. Scott, Cleveland, Ohio.	W. W. Dawson, Cincinnati.
Ellsworth Eliot, New York.	Francis Delafield, New York.
Geo. J. Engelmann, St. Louis.	Geo. J. Engelmann, St. Louis.
N. F. Essig, Plattsburg, Mo.	Wm. A. Hardaway, St. Louis.
I. Minis Hays, Philadelphia.	I. Minis Hays, Philadelphia.
D. W. Stormont, Topeka, Kan.	D. L. Huntington, U. S. A.
D. A. Linthicum, Helena, Ark.	A. Jacobi, New York.
A. R. Smart, Hudson, Mich.	Hosmer A. Johnson, Chicago.
Christopher Johnston, Baltimore.	Christopher Johnston, Baltimore.
R. A. Kinloch, Charleston, S.C.	R. A. Kinloch, Charleston, S. C.
J. M. Taylor, Corinth, Miss.	George M. Lefferts, New York.
R. C. Moore, Omaha, Neb.	Joseph Leidy, Philadelphia.
T. F. Wood, Wilmington, N.C.	S. Weir Mitchell, Philadelphia.
G. A. Ketchum, Mobile, Ala.	Henry D. Noyes, New York.
George F. French, Minneapolis.	Thaddeus A. Reamy, Cincinnati.
William Pierson, Orange, N. J.	Thos. F. Rochester, New York.
Lewis A. Sayre, New York.	Lewis A. Sayre, New York.
F. M. Beard, Vincennes, Ind.	Jonathan Taft, Cincinnati.
J. S. Lynch, Baltimore, Md.	W. Chew Van Bibber, Baltimore.
W. E. Anthony, Providence.	Horatio C. Wood, Philadelphia.
W. H. Wathen, Louisville.	David W. Yandell, Louisville.
F. L. Sim, Memphis, Tenn.	Chairman of Com. on Finance.
Wm. McLaughlin, Texas.	R. Palmer Howard, Montreal.
Surgeon-General U. S. A.	Surgeon-General U. S. A.
Surgeon-General U. S. N.	Surgeon-General U. S. N.
Surgeon-General U.S.M. H. S.	President of Am. Med. Assoc.
W. C. Dabney, Virginia.	
E. T. Upham, West Randolph, Vt.	
G. Baird, Wheeling.	
W. Watson, Dubuque.	
N. Senn, Milwaukee.	

PRECAUTIONS ON THE BORDER LINE AGAINST SMALLPOX.—Acting Secretary Fairchild has decided to comply with a request from the Governor of Michigan for the temporary appointment of sanitary inspectors to aid the State authorities in preventing the introduction of smallpox into Michigan from Canadian ports. These inspectors will be under the direction of the Marine Hospital Service, and will be stationed at the principal points of entry, such as Detroit, Port Huron, and at the crossing of the Canada Southern Railroad. Surgeon Sawtelle, of the Marine-Hospital Service, stationed at Detroit, has been instructed to arrange the necessary details and to act in conjunction with the local authorities.

SMALLPOX IN MONTREAL.—The following report concerning the progress of the epidemic in Montreal has been received from the National Board of Health:

Number of deaths from the disease in April,	6
" " " " May,	13
" " " " June,	46
" " first two weeks in August,	45
Total,	110

Number of houses bearing placards on the 19th instant, indicating the presence of smallpox, 106.

CHOLERA CONTAGION.—The *British Medical Journal* calls attention to the fact that the next few months will see several thousand packages of fruit exported every week from the southern and western coasts of Spain—notably nuts from Barcelona, lemons from Valencia, and grapes from Almeria. These last are packed in barrels, filled up with cork-dust; and the attention of the authorities is called to the importance of this fact, in view of the great epidemic of cholera in Spain. This is the more important, inasmuch as cholera contagion is believed to be frequently conveyed by food.

PROFESSOR LEUBE, of Erlangen, has received and accepted a call to succeed Professor Gerhard at the University of Würzburg.

DRY TREATMENT OF BURNS.—Dr. Géza Dulácska recommends that burns should be dressed with soda sprinkled on cotton-wool, bandaged to the wound. The pain may be severe for a short time, but it goes off in half an hour. In an hour the effect is quite perceptible, the reddened skin having regained its natural color, and the pain being gone. In three days the epidermis comes away, leaving a healthy corium below, without pain or suppuration.—*British Medical Journal*, August 5, 1885.

LIMITS OF EXPERT TESTIMONY.—*The Therapeutic Gazette*, for April 15, quotes a case from the last volume of the *New York Law Reports* which bears on the limits of expert testimony.

A child injured in a railway accident obtained a verdict for damages on the ground of possible future consequences of the injury. The Court of Appeals held that testimony on this point was improper, and reversed the judgment. The Court held the opinion that "consequences which are contingent, speculative or merely possible, are not proper to be considered in ascertaining the damages. It is not enough that the injuries

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received may develop into more serious conditions than those which are visible at the time of the injury, nor even that they are likely to so develop. To entitle a plaintiff to recover present damages for apprehended future consequences, there must be such a degree of probability of their occurring, as amounts to a reasonable certainty that they will result from the original injury."

The testimony which was thought improper by the Court was given by Dr. E. C. Spitzka, in response to a hypothetical question. He said that the points of the question proved epilepsy, while the symptoms given by the patient himself left that matter open, leaving it either as a preliminary stage of epilepsy or meningitis or traumatic dementia, the witness could not decide which. He further said that the condition of the boy was very likely to be permanent, and in response to the question as to what he meant by "very likely," he said: "I mean that the boy will always have some remnants of this injury, some reminder of it, great or small, that is certain; how much he will retain I cannot tell, but I think it very likely he will retain some." Further discussion then occurring between the counsel as to the "very likely," Dr. Spitzka said that the boy was likely to retain the greater part of the symptoms, if he did not develop worse signs, and when asked what he meant by "worse signs," said: "A patient sustaining such injuries and presenting such premonitory signs may develop traumatic insanity, or meningitis, or progressive dementia, or epilepsy with its results." This testimony the Court held to be improper, as opening the door for all possible inferences on the part of the jury, and tending to probable extravagant estimates of harm, and a new trial was therefore granted. The case is of interest, as showing the carefulness with which evidence must be given by medical experts, when future consequences of an injury are under consideration.

DRUG ADULTERATIONS IN MASSACHUSETTS. — The Massachusetts State Board of Health recently sent out some fifty orders for drugs to various apothecaries in Boston and the neighboring cities and towns, for the purpose of seeking adulterations. Among the orders was one, sent to an apothecary near Boston, for certain amounts of deodorized tincture of opium, white wine, syrup, precipitated sulphur, and zinc, all marked "U. S. P." The inspector brought back the drugs supplied in five different bottles as furnished by the apothecary. The opium was found to be just one-tenth its proper pharmacopœial strength. The white wine was simply strong alcohol. The syrup was largely contaminated with dirt. The order for precipitated sulphur the druggist declared himself unable to fill, while for zinc, two salts of that metal are said to have been furnished for the purchaser to take his choice. A prosecution is looked for.—*Boston Med. and Surg. Journal*, August 20, 1885.

TESTIMONIAL TO PROFESSOR KOCH.—On Sunday, August 2d, Professor Koch was the recipient of a handsome testimonial from the physicians who attended the "cholera course" during the past winter. It consisted of a handsome ebony case richly ornamented with silver. The lid of the case is overlaid with a silver plate, containing in relief a bust of Professor Koch and the figure of the goddess Hygeia, together with further appropriate ornamentation.

PRIORITY IN THE REMOVAL OF THE UTERINE APPENDAGES FOR THE RELIEF OF UTERINE MYOMA.—MR. LAWSON TAIT, in a valuable paper on the modern treatment of uterine myoma, which appears in the *British Medical Journal* for August 15th, says: Personal questions concerning the priority of a discovery, or priority of the introduction of new proceedings, are never very satisfactory; and I have no very great interest in this part of the present question, which has been frequently discussed, other than that I am somewhat jealous for the honor of English surgery, and do not like to see the persistent inclination on the part of some of my metropolitan brethren to give the credit of the introduction of the plan, now universally adopted, of removing the uterine appendages for the relief of pain and hemorrhage, either to Germany or to the United States, when, as a matter of fact, it was done by myself, after mature deliberation and discussion, some considerable time before it was done either by Prof. Hegar or by Dr. Battey. The details have already been published in my book, and I need only briefly refer to the fact that the first discussion and final settlement of the proposal was made in October, 1871, the operation upon that patient being performed successfully on February 11, 1872. Dr. Hegar's case was performed on July 27, 1872, with a fatal result. My second case, which was also successful, was performed on August 1, 1872; and Dr. Battey's, which was also successful, was performed, for reflex troubles, on the 17th of the same month. The discussion of the principle of the operation was given in full in my Hastings Essay on "Diseases of the Ovaries," published by the British Medical Association in 1873. So long as these facts cannot be contradicted, the whole merit of the thing, however much or little it may be, belongs to British surgery.

THE GERMAN CONGRESS OF NATURALISTS AND PHYSICIANS will hold their fifty-eighth annual meeting at Strasburg, commencing on Thursday, September 17th, and will continue for one week. Fourteen of the twenty-four sections deal with branches of medical science.

UNIVERSITY OF VIENNA.—Drs. Hofmokl, Ultzmann, and Anton Wölfler have been appointed Extraordinory Professors of Surgery, and Dr. Mauthner. Extraordinary Professor of Medical Chemistry.

THE PRIZE AWARDED TO DR. BROWN-SÉQUARD.—It is the custom of the five Academies constituting the Institute of France to award a prize of 20,000 francs every two years. The prize is successively given to a scientist, a man of letters, a philosopher, an artist, and an archæologist. Every second year one of the five Academies selects a candidate, and, with the consent of the other bodies forming the Institute, awards him the prize. This year is was the turn of the Académie des Sciences to choose the candidate. The eleven sections of this scientific body may each put forward a candidate. On the present occasion, as we announced on the 4th inst., Professor Brown-Séquard was chosen by the Section of Medicine and Surgery; and M. de

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Brazza, the African explorer, to whom France is indebted for much of the territory she possesses on the Congo, was the choice of the Section of Geography and Navigation. Five other sections also nominated a candidate. So that Physiology, Geography, Mathematics, Chemistry, Botany, Physics, and Astronomy were pitted against one another for the prize—a prize, be it remembered, that such men as M. Guizot and M. Thiers were proud to obtain. At the first ballot 20 votes were given to Dr. Brown-Séquard and 15 to M. de Brazza, and the remaining 20 went amongst the other five candidates. The second ballot secured 40 votes to Dr. Brown-Séquard, his opponent merely retaining his previous votes. The Académie des Sciences having, therefore, selected Dr. Brown-Séquard for the prize, the whole Institute of France had to accept or refuse what had been done by that scientific body. The Institute ratified the choice of the scientific academy by a majority of 67 votes, the numbers being 74 and 7. It must be a source of much gratification to Dr. Brown-Séquard to find that his efforts to extend our knowledge of physiology and pathology have been so ungrudgingly appreciated by the Académie des Sciences, as well as by the whole Institute of France.—*Lancet*, July 25, 1885.

DR. MERKEL, Professor of Anatomy in the University of Königsberg, has been appointed to succeed Professor Henle in the Chair of Anatomy at Göttingen. Dr. Merkel is a son-in-law of Professor Henle.

A ROYAL PRACTITIONER OF MEDICINE. — Prince Ludwig Ferdinand, of Bavaria, son-in-law of Queen Isabella of Spain, who obtained the degree of Doctor of Medicine at Munich last year, is, according to the *British Medical Journal*, now practising at Nymphenberg, Bavaria.

PRIZE FOR A NEW EAR TRUMPET.—BARON LEON VON LEUVAL, of Nice, founded a prize of 3000 francs, on the occasion of the Third Otological Congress, for the best instrument, constructed on the principle of the microphone, for assisting the faculty of hearing for deaf people, being one that can be conveniently carried about. Those competing for this prize are to send their instruments before December 31, 1887, to one of the members of the jury, namely, Prof. Dr. E. Hagenback-Bischoff, president of the jury, at Basle; Dr. Benni, at Warsaw; Prof. Dr. E. Burckhardt-Merlan, at Basle; Dr. Gellé, at Paris; or Prof. Dr. Adam Politzer, at Vienna. Only finished instruments will be accepted, which will be tested as to the perfection of their mechanical construction, and the correct application of physical laws, but chiefly as to their powers of improving the sense of hearing. The judgment of the jury will be made known at the Fourth International Otological Congress at Brussels, in September, 1888.—*British Medical Journal*, August 8, 1885.

PROFESSOR P. VOGT, who succeeded Prof. Hueter in the Chair of Surgery at Greifswald, died suddenly recently in the forty-first year of his age.

DEATH OF PROFESSOR FEHLING.—Professor Herman von Fehling died recently at the age of seventy-two. His name is familiar to every practitioner of medicine as the originator of Fehling's Solution. The adoption of his method to determine the presence of sugar in the urine was universal, and is still recognized as one of the best means for the purpose. He was a pupil of Profs. Liebig and Dumas. His contributions to the advance of chemical science are valuable. In 1831 he received the Professorship of Chemistry at Stuttgart, and filled the Chair up to the time of his death.

NOTES AND QUERIES.

To the Editor of THE MEDICAL NEWS.

SIR: Having received inquiries from a number of your readers concerning the apparatus for the inhalation of compressed air, alluded to in a recent article in your columns, permit me to make use of the same columns to say that the apparatus was made for me by Queen & Co., of this city; that the cylinders should be made of zinc; and that the diameter of the inner cylinder should be twelve inches.

Yours respectfully,
SOLOMON SOLIS-COHEN.

1826 WALLACE STREET, August 19, 1885.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, FROM AUGUST 18, 1885, TO AUGUST 24, 1885.

STEPHENSON, WM., *First Lieutenant and Assistant Surgeon.*—Granted leave of absence for one month, to take effect Sept. 1, 1885.—*Fort Niobrara, Nebraska, S. O. 97, Department of the Platte*, August 20, 1885.

BLACK, C. S., *First Lieutenant and Assistant Surgeon.*—Upon return of Troops F and L, Third Cavalry, to Fort Davis, Texas., to rejoin his proper station at Fort Clark, Texas.—*S. O. 98, Department of Texas*, August 13, 1885.

MCCAW, W. D., *First Lieutenant and Assistant Surgeon.*—Having reported back at these headquarters from detached service, ordered to rejoin his proper station, Fort Lyon, Colorado.—*S. O. 122, Department of the Missouri*, August 17, 1885.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY DURING THE WEEK ENDING AUGUST 22, 1885.

M. C. DRENNAN, *Surgeon.*—To temporary duty at Annapolis, Md., as member of Board for Physical Examination of Candidates for Admission to U. S. Naval Academy.

WM. J. SIMON, *Surgeon.*—To temporary duty at Annapolis, Md., as member of Board for Physical Examination of Candidates for Admission to U. S. Naval Academy.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE-HOSPITAL SERVICE, FOR THE WEEK ENDING AUGUST 22, 1885.

BAILHACHE, P. H., *Surgeon.*—Granted thirty days' leave of absence, August 15, 1885. Chairman of Board to examine candidates for appointment as Cadet in the Revenue Marine Service, August 19, 1885.

IRWIN, FAIRFAX, *Passed Assistant Surgeon.*—Recorder of Board, August 1, 1885.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLVII. SATURDAY, SEPTEMBER 5, 1885. NO. 10.

ORIGINAL LECTURES.

AMENORRHŒA.

A Clinical Lecture delivered at the Long Island College Hospital.

BY A. J. C. SKENE, M.D.,
PROFESSOR OF GYNECOLOGY TO THE LONG ISLAND COLLEGE AND POST-GRADUATE SCHOOL OF NEW YORK.
(Reported by Edward Develin, M.D.)

GENTLEMEN: To-day I shall take up the subject of amenorrhœa and discuss fully the etiology of this difficulty, illustrating the same with some cases of extreme interest and value to us.

In organic diseases, especially those of the liver, heart, lungs, or kidneys, in the advanced stages, we may look for derangements of menstruation. Those of you who have studied the pathology of these organs know that if there be an obstruction to the return circulation, from hepatic disease, for example, passive hyperæmia ensues, and if long continued tends to produce degenerative action. Hence, we find what is termed secondary degeneration of the pelvic organs arising from organic disease of the liver. We also find the same state arising from valvular lesions of the heart; the result is, of course, produced indirectly, but, nevertheless, the organic disease is the primary cause and starting point of this derangement of the menstrual function, which may be either menorrhagia or amenorrhœa; and a careful study of the lesions of the circulatory system cannot fail to show you how this comes to pass.

It is, however, not so easy to state why Bright's disease of the kidneys should produce derangements of menstruation. Amenorrhœa is naturally a consequence of hepatic or heart affections, but in renal disease the pathology is not as easy of explanation, as it is perhaps less mechanical than the former. I presume in amenorrhœa occurring from renal disease, that it is due more to malnutrition, tissue deterioration, and anæmia. The point, however, to which I specially call attention is the necessity for us to look well to the general organization in obscure cases, and seek there the causes of amenorrhœa, rather than in the pelvic organs themselves.

In support of this I will briefly relate a case that came under my observation. A lady suffering from menorrhagia called upon one of our distinguished gynecologists in New York, for consultation as to her condition. His attention was entirely directed to the pelvic organs. He used every means at his command, including frequent curetting of the uterus, but the menorrhagia still continued. One day she died very suddenly, and the post mortem revealed marked cardiac disease, this being the cause of her death. The uterus was perfectly normal, except some evidence of a passive hyperæmia, occurring as I have previously stated. Had this gentleman for a time forgotten his special department and taken a broader view of his case, he would at once have seen that it was due to cardiac disease. I mention this here in order that others may not fall into the same error. Therefore, if you do not find any well-defined local cause for the derangement of menstruation, look to the organs of nutrition.

I would now call your attention to the management of amenorrhœa in chlorotic patients. This condition, known as chlorosis, presents that peculiar form of organization in which we have a partial arrest of the development of the circulatory apparatus and sexual system.

The consequence arising from this insufficient development is that amenorrhœa is the rule, as is also anæmia. In chlorosis especially, the blood-making organs are sluggish and defective, and while the patient appears healthy, apparently, owing to the amount of adipose tissue observable in this condition, the heart action is feeble and easily gives out; they become tired easily on the least exertion. Such individuals cannot afford to menstruate, although they may do so under ordinary circumstances. But the moment you put a tax upon the system by which their vitality is used up in other channels, they become very anæmic, and amenorrhœa follows.

You will also find that these patients do not respond well to restoratives and tonics, as will any well-developed organization that is simply suffering from anæmia for the time being, because of this peculiarity of organization which I have just described. You give them iron and good nourishing diet, and they improve so slowly and fall back so often that you become almost discouraged. In these cases of chlorosis you will find the alterative tonics effect by far the most satisfactory results. Until I adopted this plan of treatment I made but slow progress in my treatment of chlorosis. You can, of course, never change the organization, or make a well-developed, ruddy, vigorous woman of such a patient; but you can regulate their digestion so that assimilation is greatly improved, and a fair condition of health maintained. In these cases you will find iodine, in the form of iodide of iron, answers well; this, however, is better in the strumous diathesis. In these cases of chlorosis we find that small doses of mercury is one of the best possible tonics. Now I know that I am taking a liberty when I mention mercury in small doses as a tonic. But we are indebted to Prof. Edward Keyes, of New York, for demonstrating that the actual number of red blood-corpuscles is increased by the administration of small doses of mercury in syphilis, and I think it has a similar effect in chlorosis. I know that if you give from one-thirtieth to one-fiftieth of a grain of the bichloride to a chlorotic patient three or four times daily, she will improve under the treatment, especially if you add the chloride of iron.

We must also remember that in the chlorotic girl the nervous system is below par, which would indicate the administration of the chloride of arsenic. Such patients are likely to be very dyspeptic, indicating a lack

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of gastric juice, or its properties; hence, we administer hydrochloric acid. These remedies are contained in the mixture called "the four chlorides," viz., chloride of iron, chloride of arsenic, bichloride of mercury, and hydrochloric acid. Under this treatment it is surprising how these pale, greenish-yellow-looking girls will improve; but you must continue it for some time in order to obtain the best possible results.

Some may ask, "Are you not afraid to give one-fortieth of a grain of the bichloride of mercury for a long time?" I have given it for two months regularly, and then stopped for one or two weeks, and then again continued it for one month longer, without any bad effects whatever ensuing. I have also known it to be given for a longer period than that with most marked beneficial results.

In discussing this subject of amenorrhœa, I cannot impress upon you too strongly the recognition of this peculiar organization in those individuals known as chlorotic, because these often suffer from derangement of the menstrual function, and are more difficult to relieve than ordinary cases of amenorrhœa.

Case I.—I have here now a patient suffering from amenorrhœa, which will illustrate one or more points in regard to the relationship existing between the sexual system and the general organization when the reproductive function or reparative process is at fault. She has now reached her twenty-first year.

The question here arises, What is the cause of this amenorrhœa? The true meaning of the term, as you are aware, indicates the complete suspension of the function of menstruation. Let me say just here, that we are in the habit of taking some liberties with the term, as we sometimes say a patient is suffering from amenorrhœa when she is suffering from *scanty* menstruation. But the term means complete suppression of the menses; and in the patient before you we have this complete suppression.

She informs me that she commenced to menstruate when she was about sixteen years of age; at that time she was living in Ireland; she left her native country just six months ago. She has five sisters and three brothers, all of whom, she says, are apparently healthy. The father is alive, but the mother died of consumption, as did also other members of her family, including some aunts and uncles. The patient furthermore informs me that she has always enjoyed good health, has not had any pain, and that her menstruations were perfectly normal until one month before leaving Ireland, when they failed to appear, and since that time she has never menstruated, but has suffered with a general decline of health.

Here we have sufficient clinical history to settle one or two points. You remember I said there were certain conditions necessary to normal menstruation. First, a good general condition of the body with efficient brain and nerve power. Second, sexual organs perfect in their development and function. We find in this case that we have had all of these conditions. I know from her clinical history that she is a woman who has had a generally good organization, and also that her sexual organs have been well developed and capable of performing their natural function. She is, as you observe, a little above the average size woman, and her general appearance is good; and a more important fact is, that she began to menstruate at the time of life which is natural to that climate. This function occurred regularly, and I have no doubt lasted the average period, and, I presume, presented its natural characteristics.

There is one important point to which I wish to draw your attention, and that is that she missed one menstrual period *before* leaving Ireland; at that time she did not suffer in any way; there was no pain, there was no cough. Her friends advised her to consult a physician before she left; others again said the sea voyage would probably cause the periods again to appear. The result, however, was that she left her home without consulting a physician. Now, had she menstruated regularly up to the time of her departure, and then ceased to menstruate upon her arrival here, it would not be at all surprising, as, if a sea voyage be made close to, or during, the menstrual period, there is often observed a suspension of this function for a time, especially if the individual suffer much from seasickness. But why, you ask, should this seasickness produce this result? Because it produced a deranged innervation with a peristalsis upwards; they have not sufficient force left to carry on the natural functions in other directions. Thus it is sometimes we find strong, healthy, vigorous-looking girls come to us suffering from this suppression of menses, having recently made a sea voyage; and we cannot find any cause but this seasickness to account for their abnormal condition. These, however, in time menstruate normally; they have no disease, no anæmia, or any displacement of the organs; there is nothing wrong with them except that this function has been arrested by seasickness. It is, therefore, in such cases one of the causes of amenorrhœa.

This may have been the cause here in the case before you, but if so, why has she not menstruated since she landed? Why did she cease to menstruate before she left Ireland? Her health, I fear, was failing before she left her home to come here. You can observe that she is anæmic, the color of her face, lips, and tongue tells you this; it may be, therefore, consequent upon some trouble that began before she left home, and has increased since she came here. Her pulse is weak, thready, and small; her appetite is very poor, and she states that she can go all day without eating food, and then has no desire for any. Her breathing also is short, and she is at present troubled very much with a cough, especially at night. We may find some malcondition of the nutritive system which may account for this, and upon examination we find an abnormality at the apex of the left lung, indicating plainly that the patient is suffering from phthisis. This, together with the history we have already obtained, points to this disease as the cause of her anæmia, cough, and fever, and resulting in the suppression of menstruation. Here, then, we have a condition of the general organization which accounts for her amenorrhœa.

Of course, as physicians, we have to think that the faulty organization is not the only cause; there might be other causes at work, causes which would be physiological, and would not require the services of the gynecologist, but rather the services of the obstetrician. The only peculiarity about her case is this: The rule is that amenorrhœa appears in the advanced stage of phthisis pulmonalis; when patients are in the third stage of the disease the menses become scanty, and

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finally cease altogether. But there are exceptions, and this case now before you well illustrates such a one. Where amenorrhœa occurs in the first stage of phthisis it seems to come simultaneously with the lung trouble. In this case it is evidently conservative; a patient with marked degeneration of the lungs suffers from impairment of the whole nutritive system; she cannot then afford to menstruate. The system is below par, and there is a want of the reparative process of nature which has heretofore supplied and sustained the sexual organs in their natural functions; and thus nature herself reserves all her available forces in order to supply the system with the nutritive properties necessary to carry on the power of supporting life. We find, then, owing to this diseased condition of the body, that the function of appropriating nutriment for the sustenance of life is imperfectly carried on; and the products which have undergone a tissue metamorphosis are slowly used up, owing to the non-assimilation and non-appropriation of the nutriment supplied to the body; hence, we have this gradual emaciation, followed by exhaustion, until life itself is extinguished. In these cases of phthisis we then say we are glad when the function of menstruation is abandoned by nature, as in all probabillty the patient will live the longer. It may be, and I presume it is, conservative when this function is abandoned in the early stages of the disease, or when we have that condition of the system which tends to tuberculosis.

When we have an underlying tendency to disease, and when that tendency becomes or develops into actual disease, and amenorrhœa follows, it is then a conservative force. In these cases, then, we should be constantly on our guard; for you will find the relatives of your patient oftentimes insisting that if the doctor could only restore the menstrual flow the patient would be sure to recover. And should your patient die, you will perhaps find some who will still insist that her death was owing to lack of ability upon the part of the physician to restore the menstrual function. You may talk to them of inherited tendency; they will not know and will not care, they only know that she menstruated once, and why cannot you bring around the function as it used to be? These people will torment your life out almost by their persistent obstinacy and lack of reasoning power.

Now, if in the first place, upon the cessation of menstruation, you say to the relatives that it is conservative, and is an effort upon the part of nature to reserve her forces to meet the waste of other parts of the system, that your patient will live the longer for it, and that you are glad it has occurred, they will the more readily understand you, and place full reliance in you; tell them plainly that you do not desire her to menstruate.

In this case before us I have no hope of menstruation ever again occurring; her pulmonary difficulty will increase, as she has not the means and necessaries by which she can endeavor to arrest her malady. She cannot take proper care of herself; but whatever will relieve her lung trouble will tend to restore menstruation.

The cause here is organic disease of the respiratory organs, and until that is removed we can do nothing in the way of treatment for her amenorrhœa. I insist upon this, and cannot impress it upon you too strongly, as upon this subject the laity, you will find, will have a great deal to say. Again and again have I seen them insist that the amenorrhœa was the cause of the pulmonary difficulty; they would insist upon giving the patient hot foot-baths, hot drinks of all kinds, with decoctions of herb teas innumerable, in order, as they said, to establish menstruation.

This patient I will now hand over to Dr. Cushing, who will place her under good tonic treatment, with directions as to hygiene, etc.

Case II.—This young girl is seventeen years of age, and, like our previous case, is suffering from amenorrhœa. The cause of this condition we will at once proceed to investigate. She informs me that she commenced to menstruate when she was about sixteen years of age, and continued to do so for some five months. About six months ago she came to Dr. Cushing, six weeks having elapsed since her previous menstrual period.

To digress for a moment, I might here say that we can settle one question, namely, that of development. Here is a young girl who began her menstruation at the natural time of life, and continued to do so for some time, the function for some cause having then been arrested. This has shown us clearly that the organs have been fully developed; we can, therefore, exclude the non-development of the sexual organs as a cause for this amenorrhœa.

Since she has been under the care of a physician she has menstruated three times; this makes it once in every two months, and it is now some seven weeks since menstruation occurred. We have here, then, a case of retarded or interrupted menstruation.

When she was fifteen years of age she commenced to work in a paper factory, and has continued at factory work since that time. Now here we have a patient who has a fairly good organization; she is well developed and of quite the average size for her age. Here, then, we can not only exclude non-development of the sexual organs as a cause of her amenorrhœa, but we can also exclude that of general lack of development. We must, therefore, look for some cause intercurrent to account for her present condition. As she now is, she has quite a fresh color in her cheek, but this is principally owing to the excitement and nervousness induced upon appearing before so many medical men.

We must now take into consideration that early in life this girl had to work and earn her own living, working, perhaps, in an illy ventilated room with a number of other people where the air was foul and unwholesome from the crowding together of the occupants. She has, therefore, been placed under those conditions which derange the functions of life, her nutritive system having been in all probability taxed to its utmost. We find that in classifying the human family we cannot write the history of the human species as we can of those of birds and beasts, where the history of one represents the whole of that species. If you try this method with the human family, you will fail most signally. Just consider the difference between the conditions of any of the fashionably dressed and better class of ladies in our cities, and that of this girl who spends ten hours a day amidst the dust and oil of machinery, where, if you did not look closely, you would almost think she was part of the machinery, so

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automatic do they become. Compare, I say, the histories of these two classes and you will say they do not belong to the same race. So then must we seek different causes as to this condition of amenorrhœa. In the latter case we have a human being overtaxed, poorly fed, and deprived of that greatest of necessities to good health, pure air. Is it then any wonder that in such a case we should find derangement of nutrition? This girl cannot afford to menstruate regularly although originally prepared to do so; she has not nerve-force and nutritive material to spare for this purpose; she has not the blood supply, although she has the organs ready to fulfil their part. Now, her physician has been trying to build up her health, and has partially succeeded in so doing, and would no doubt have done so much more quickly had she been able to leave her work and secure proper diet and exercise.

We then find that this girl is suffering from amenorrhœa from derangement of nutrition only and not from organic disease. Between these two points you can draw the difference, and thus discern the cause most readily. This case and the previous one are both alike in symptomatology: but the troubles arise from entirely different causes; one probably incurable and the other entirely curable.

Case III.—We have here a patient eighteen years of age. She comes to us to day with the statement that she has never menstruated, and desires to know the cause and place herself under treatment, in order that this function may be brought about.

The question in this case arises, Is this amenorrhœa due to retarded development, or is it due to malnutrition? She is certainly old enough to menstruate, so we can leave that out with perfect safety in seeking for the cause of her amenorrhœa.

She states that she has been compelled to go out and do housework in order to support herself ever since she was nine years of age; she has never been strong, being also somewhat small in size, but yet she has never had any serious sickness. Her appetite has not at any time been what would be called good. She has had nine brothers and sisters, three of whom are dead, she herself being next the youngest. Both parents are dead, but she cannot give the cause of death in either case.

A question here arises whether this retarded puberty be due to transmitted disease or the abnormal conditions of life by which she has been surrounded. Her general development indicates that she is big enough to menstruate, but there is an arrest of that special development which occurs at puberty, the breasts and sexual organs being undeveloped. Her parents, we have heard, died before she was old enough to take cognizance of the fact, and there have also occurred three other deaths in the family. It would, therefore, be fair to presume that her general organization as transmitted is not perfect. Her life and pursuits also have been hard from infancy up, which condition would also tend to retard her sexual development, the vital forces being used up in her daily avocations.

Here, then, we have a combination of conditions, either of which would tend to retard this development. The patient is very anæmic, as can be plainly seen, this condition probably being induced by her surroundings, and this, acting upon an organization which from the outset was illy qualified to carry on its natural functions, fully accounts for her amenorrhœa.

This girl then simply fails to menstruate because of this retarded development of the sexual organs. She has not had the vital energy sufficient to complete the secondary development of her sexual organs and at the same time attend to her daily labors.

Under these circumstances what shall we do? I presume that the sexual organs are not absent: we will, therefore, simply endeavor to change her conditions of life; let her do less work and do more for herself in the way of securing good nourishing diet and restorative tonics, and I have no doubt that if we can do this, her secondary development will follow, and that she will menstruate normally.

Now compare this treatment with that in vogue some years ago. The opinion then held by the laity and the profession as well, was that this amenorrhœa was the cause of the anæmia and ill-health of the patient. The treatment was then directed to establish or restore the menstrual function. This kind of practice was based upon the belief that, if this would be effected, a better condition of health would be the result, hence emmenagogues were used. We now know that the amenorrhœa is not the cause, but rather the effect of this anæmia and low condition of vitality. Instead, therefore, of dosing our patients with medicines to stimulate the pelvic organs, using hot foot-baths, etc., we now reverse the order of things and take the amenorrhœa as the consequence of ill-heath and leave the sexual system alone; knowing that we can only reach them through the nutritive system, and if we can succeed in building up the general health of the patient, the development of the sexual system will follow, and menstruation will appear in due time.

Case IV.—This patient that I now present to you came to me two years ago. She was then seventeen years of age and suffering from amenorrhœa. She was then, as now, undersized for her age; but since that time she has greatly improved, but as you can plainly observe, she is the subject of an arrest of general development.

Although seventeen years of age when she came to me, she had never menstruated and presented the appearance of a girl twelve years of age. She was born of perfectly healthy parents, but at the time that I saw her she was suffering from an acute disease of the liver. I am perfectly well acquainted with this child's history, as I have attended the family and know that there is transmitted disease in the case. This well illustrates the subject I have heretofore alluded to: I refer to organic disease being a cause of amenorrhœa; but in this case we have a chlorotic condition and retardation of development of the sexual organs, acting in conjunction with some disease of the abdominal viscera to bring about the derangement or menstruation. She has, of course, also as a natural result of the disease and chlorosis, become somewhat anæmic Now, although she is not at the present time a very robust or healthy looking girl, she has improved in her general condition and her anæmia is not so marked. She has also menstruated, but not perfectly; menstruation being irregular and failing in its usual characteristics. It is, however, a step in the right direction, and, in all proba-

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bility, this function may be fully established if the treatment be continued.

At the time she first presented herself it was a question as to whether there might not be some transmitted specific taint; and because of that, it was suggested that specific treatment be adopted; but the family history and general appearance of the girl, overruled such an inference. She was therefore placed upon the mixture of the chlorides before mentioned, and I am pleased to show you the efficiency of the treatment. There was, however, in addition, quinine and iron administered, the vicinity in which she resided being somewhat of a malarial district, and she had previously suffered from this miasmatic affection. We will continue to give her the citrate of iron and quinine and the mixture of chlorides, alternating them.

Case V.—This patient is 40 years of age, and, like our previous case, is suffering from amenorrhœa. This one, however, is more on the descending line of life, while the other was but at the commencement. In all probability, therefore, we shall find that her amenorrhœa arises from a different cause. She informs me that she has been married for twenty years, and that she has borne three children. She further states that her menstruations were regular until eight months ago, when she contracted a severe cold from exposure and wetting of the feet; and, to make it still more severe, her menstrual flow had at that time just commenced, and was immediately checked owing to this cold and exposure. She complains, also, in addition to her amenorrhœa, of a severe cough, keeping her awake at night; shortness of breath, so much so that she can hardly walk up stairs; she has profuse expectoration; and her appetite is very poor; in fact, she is extremely weak and anæmic. We here see also a sign of what at one time was considered pathognomonic of phthisis. I allude to these curved finger-nails, which give a club-shape to them. This is stated even now by some to be a sign of tuberculosis, but I have very good reasons for believing that it may occur in other diseases as well as in tuberculosis; in fact, I am well satisfied in my own mind upon this point. Now, is this amenorrhœa due to organic disease of her nutritive system, or is it simply a premature menopause? It is certainly not uncommon for menstruation to cease at forty, for this function varies in different individuals. I have seen a case in which the menopause occurred at twenty-eight years of age, and cases have been reported at twenty-five years of age. On the other hand, I have met women in whom menstruation had been maintained beyond the fiftieth year; and in these various ages the individual has maintained a fair degree of health. Now, if this amenorrhœa in this patient is owing to a premature menopause, we need not be anxious about her, as it is then physiological. But we cannot rest here, as she has other symptoms which must be detrimental to health; I allude to her pulmonary difficulty. The doctor who has examined her has not been able to satisfy himself that she has tubercle of the lungs, although feeling convinced that a tendency to tuberculosis is the cause of her amenorrhœa; and, taken with her history, it appears to me more likely to be the cause than her age. As a rule, amenorrhœa always occurs in the advanced stage of phthisis, but it may occur in some at the outset or incipient stage of the disease, as in our first case. You will find in some cases that your patient will have amenorrhœa before she manifests any well-defined lung trouble; you will almost always find some evidence of commencing tuberculosis, but it may not be marked. Now why that is, I do not know: but I know it to be a fact that this suppression of the menses occasionally occurs in the early stages of pulmonary difficulty. Those having a well-marked tubercular diathesis are most liable to early suppression of the menses.

This is practical and important to know, for you will have patients brought to you suffering from amenorrhœa with no marked history of lung trouble; but, if you are careful in your examination, and secure a thorough history of the case, and go back a few years to her ancestors, you may perhaps find some trace of tuberculosis, and which has in all probability been transmitted, though the symptoms and signs be but illy defined in your patient. I remember a case very well which will illustrate this: A lady came to me one day, bringing her little girl with her to be treated for some throat affection. The following day she also brought an elder daughter, aged between 15 and 16. She drew my attention to her, saying that the girl was feeling quite well, but she did not know why she should have discontinued menstruation, and had begun to feel a little anxious about it; "but," said she, "I thought it might be because she was growing so fast, and that she would again menstruate in time." The mother, however, felt anxious about her, and desired my opinion. On examination, the girl to any would seem to be in good health; she certainly had all the general appearances of health; but there were some points that, to my mind, indicated a tubercular diathesis; and from her history I ascertained that such difficulty had been in the family. I candidly told the mother my opinion, expressing it that the girl would never menstruate. This amused her very much, as to her it seemed absurd. I then told her I did not think the girl would live until she was eighteen years old. I had, by a very careful examination, discovered a very small tubercular deposit at the apex of the left lung, but the patient had no cough. Taking this deposit in the lung, together with the amenorrhœa, I felt that the chances of life were very poor, indeed. I was fully justified in expressing my opinion, as I have just stated, in order that the mother might be fully aware of the serious nature of her daughter's malady. I was not consulted again by that family for some time after, when one day the mother called at my office and asked me whether I would not change my opinion regarding her daughter's case, although up to that time she had not menstruated. The mother then left, feeling somewhat indignant at what she thought an unfounded diagnosis, causing her needless alarm and anxiety. I then lost sight of her for some time, until one day she came to my office with the girl whom she had first brought to me. She then informed me that her elder daughter had died just after her seventeenth birthday. Such instances coming before us should, then, make us the more careful in searching for the causes of this amenorrhœa.

In the present case we will therefore direct our attention to the lung trouble, and leave the sexual organs alone. If this difficulty of the lungs can be overcome, I am well satisfied that menstruation will again become established.

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ORIGINAL ARTICLES.

EXTRACT OF MALT.

BY WILLIAM L. DUDLEY, M.D.,
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THE name "Extract of Malt," as applied to a pharmaceutical preparation found in the market, today, means nothing. I do not wish to insinuate that these preparations are not *extracts* of malt, for, I doubt not, they are in one sense; but as medicines, many of them are valueless, and others fall far short in the requirements necessary for that article. Many of them doubtless are made simply to sell; others to give a palatable flavor to medicines of disagreeable taste—and indeed if they are intended for any other purpose, they are certainly dismal failures, as their medicinal value is about equal to that of ordinary molasses; while the extract as prepared by other manufacturers is of excellent quality, and fulfils all the requirements.

Extract of malt is being quite generally prescribed at present by physicians; the primary object being to assist digestion, and as the medical profession, and the public generally are being imposed upon by the manufacturers of the many valueless preparations bearing this name, I propose to describe in this paper the nature, action, methods of preparation, and properties of a good extract, and also give the results of some comparative tests made with the most prominent brands which are in the market.

Extract of malt is, (or should be, as the name implies) prepared from malt or germinated barley, and it depends for its action on a soluble ferment, called *diastase*. This body has the property of converting starch into dextrine and malt sugar. Diastase does not exist in all parts of the germinated grain, being often absent in the radicles, and generally most abundant near the plumule. It exists in the tubercles of the potato near the point of their insertion, but not in the roots or the shoots. It has also been found in the buds of Ailanthus glandulosa. Neither potatoes nor cereals contain diastase before germination. During germination the diastase is formed; its function being to convert the starch into a soluble form so as to admit of assimilation by the plant, and finally to convert it into dextrine and maltose (malt sugar). In the preparation of malt the growth of the sprout is interrupted by heating in a suitable furnace or kiln. It was noticed by Vauquelin in 1811 that starch, on being heated, was converted into a substance resembling gum arabic; and Kirchhoff, a little later, showed that by boiling starch with dilute sulphuric acid, a crystallizable sugar was formed; and very soon after, Vogel found that in the latter reaction, a gum-like body was also produced. In 1814 Kirchhoff showed that the gluten contained in wheat and other grain has the power of effecting a similar change on starch, and that malted grain is most active.

Payen and Persoz were the first to isolate the active principle of malt in 1833, and to this they gave the name of *diastase*, as they believed the action of this body to be a simple separation of starch from the granule. Some time before this the starch gum had been examined by Biot and Persoz, who gave it the name of *dextrine*, from its dextro-rotary power, supposing it to be the intermediate formed in the conversion of starch into sugar. In 1860, Musculus proved this view to be incorrect, and he showed that dextrine and sugar were formed at the same time. This fact was disputed until O'Sullivan proved the truth of Musculus's view, and also showed that the sugar which is first produced from starch, is not dextrose, as had been believed, but maltose.

In addition to diastase, two other ferments are found in plants,—emulsin and myrosin. The proportion of diastase in malt does not exceed 0.002 to 0.003 per cent.

Diastase is a white, amorphous, nitrogenous substance; insoluble in absolute alcohol, soluble in water and in weak alcohol. Its aqueous solution has no decided taste, and is neutral to test paper. Placed in contact with starch at 70° C., it quickly converts that substance by hydration into dextrine and maltose. According to Payen and Persoz, one part of diastase is sufficient to liquefy and convert into sugar 2000 parts of starch; while Strecker says one part of diastase will convert 100,000 parts of starch. Observers should bear in mind in making these quantitative tests that diastase prepared by alcoholic precipitation is a complex mixture into which the really active substance enters, perhaps, only in small proportion; also, that the presence of a certain quantity of sugar interferes with the transformation of dextrine, and in order to allow the action to resume it is only necessary to dilute with water, or remove the sugar by causing it to undergo alcoholic fermentation by means of yeast.

The aqueous solution of diastase readily decomposes, turning acid, and losing its power to convert starch; but if the solution contains a small quantity of alcohol it will keep indefinitely. Dry diastase is also likely to undergo slow decomposition. On boiling it with water the decomposition is instantaneous. Bouchardat says, that the action of diastase on starch is completely prevented by nitric, sulphuric, phosphoric, hydrochloric, oxalic, tartaric, or citric acid; also by caustic potash, soda or lime, sulphate and acetate of copper, mercuric chloride, nitrate of silver, alum, and ferric sulphate; also, that it is retarded more or less by formic acid, arsenious acid, magnesium, ammonium, and alkaline carbonates; slightly, also, by acetic acid, hydrocyanic acid, strychnia, quinia, morphia, and their salts. He finds no retarding influence exerted by essential oils, creasote, alcohol, and ether.

These statements of Bouchardat are of comparatively little value, as the influence of the above-named substances on the action of diastase depends, altogether, upon the proportion; as, for instance, it has been shown that a small quantity of hydrochloric acid greatly augments the action of diastase, while a larger quantity arrests it. The same may also be said of acetic and lactic acids.

The most satisfactory method for the extraction of diastase, appears to be that of Musculus, which is a modification of the process of Payen and Persoz. It is as follows: Take one part of germinated barley,

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and after pulverizing, add it to two parts of water at 25° or 30° C. After an hour's maceration press out the liquid, and add an equal volume of alcohol at 80° C. After filtering to remove the rather voluminous precipitate, which is rejected, again add an equal volume of alcohol to the filtered liquid. Collect the very slight precipitate which is then formed, on a filter, and dry it on the filter at a very gentle heat. A diastase paper, which is very active, is obtained in this manner, and may be indefinitely kept without change.

It has been proved by more recent investigation that the chemical reaction of diastase on starch is more complicated than was formerly supposed; but if we regard only the original and final terms, we are apt to arrive at the conclusion that starch under the influence of diastase combines with itself the elements of water, and is converted into glucose; thus

$$\underset{\text{Amylaceous matter.}}{C_6H_{10}O_5} + \underset{\text{Water.}}{H_2O} = \underset{\text{Glucose.}}{C_6H_{12}O_6};$$

but this is not the case. According to O'Sullivan, the following equation represents the reaction when an infusion of malt has acted on starch-paste for from 5 to 10 minutes at 63° C.:

$$\underset{\text{Starch.}}{C_{18}H_{30}O_{15}} + \underset{\text{Water.}}{H_2O} = \underset{\text{Maltose.}}{C_{12}H_{22}O_{11}} + \underset{\text{Dextrine.}}{C_6H_{10}O_5}.$$

The presence of maltose is antagonistic to the action of diastase, and, according to Payen, the action of diastase continues until 51 per cent. of the starch is converted into a mixture of maltose and dextrine, and there it stops until the maltose has been removed. It has been shown by several investigators that on adding diastase to starch-paste heated to 70° C. that the reaction by means of iodine disappears as soon as the saccharification has affected a quarter of the starch; but the action of the diastase will continue, as has been stated, until one-half of the starch has been converted. Thus it will be seen that the iodine reaction fails as soon as a quantity of maltose equivalent to a quarter of the starch has been formed; and therefore this agent as ordinarly applied to determine the amount of diastastic action is only of value in comparative tests. The disappearance of the blue color in the iodine test when the starch is only partially converted, may possibly be accounted for by the development of complementary colors; the iodine with starch giving a blue color, and with dextrine a red, together with some yellow, which is always present.

If during the reaction the maltose is removed by alcoholic fermentation, the action of the diastase will continue, and finally all of the dextrine, as well as the starch, will be converted into maltose.

The activity of diastase depends greatly upon the temperature at which it is allowed to react upon starch. At about 65° C. it seems to be most active, and at about 95° C. it is entirely destroyed. It is held by some that diastase shows slight signs of activity even at 0° C. The proportion of maltose to dextrine formed depends much upon the temperature, and length of time the reaction is allowed to continue—according to O'Sullivan, at 63° C., and from 5 to 10 minutes reaction, the equation is as follows:

$$\underset{\text{Starch.}}{C_{18}H_{30}O_{15}} + \underset{\text{Water.}}{H_2O} = \underset{\text{Maltose.}}{C_{12}H_{22}O_{11}} + \underset{\text{Dextrine.}}{C_6H_{10}O_5};$$

or one molecule each of maltose and dextrine are formed; while at a temperature between 64° and 70° C., the following change occurs provided the mixture be quickly cooled after complete fluidity:

$$\underset{\text{Starch.}}{2C_{18}H_{30}O_{15}} + \underset{\text{Water.}}{H_2O} = \underset{\text{Maltose}}{C_{12}H_{22}O_{11}} + \underset{\text{Dextrine.}}{4C_6H_{10}O_5};$$

or one molecule of maltose to four molecules of dextrine. At temperatures near 95° C. he finds the decomposition to occur as follows:

$$\underset{\text{Starch.}}{4C_{18}H_{30}O_{15}} + \underset{\text{Water.}}{H_2O} = \underset{\text{Maltose.}}{C_{12}H_{22}O_{11}} + \underset{\text{Dextrine.}}{10C_6H_{10}O_5};$$

or one molecule of maltose to ten molecules of dextrine. The dextrine formed in each case will, on long-continued contact with diastase, finally be converted into maltose; but, as before stated, this action will be much more rapid if the maltose be removed by fermentation, or the solution be diluted.

Märker seems to have arrived at different conclusions regarding the nature of these changes, and has found that more maltose and less dextrine were produced at lower temperatures than at higher ones. By the use of yeast with diastase the whole of the starch is converted into maltose which in turn is split up into alcohol and carbonic acid.

In order to test the comparative value of the extracts of malt of the most prominent manufacture found in the market, I have made some tests on samples taken by myself from the shelves of retail drug stores, and I submit the following tabulated results:

NAME.	COLOR.	ODOR.	CONSISTENCY.	TIME FOR CONVERSION.
Forbes's Liquor Diastase	Light brownish-yellow	Malt	Mobile liquid	39 minutes.
Trommer's Extract of Malt	Dark reddish-yellow	Malt	Viscid liquid	60 minutes.
W. S. Merrell Chemical Co's Extract of Malt	Light brown	Malt-sweet	Viscid liquid	85 minutes.
Keasby & Mattison's Fluid Extract of Malt .	Brownish-red	Molasses	Viscid liquid	Incomplete conversion in 3 hours.
Maltine	Reddish-yellow	Malt	Viscid liquid	Apparently no action in 3 hours.
Hoff's Extract of Malt	Yellowish-red	Malt liquor	Mobile liquid	Apparently no action in 3 hours.
Liebig's Extract of Malt	Reddish-brown	Malt liquor	Mobile liquid	Apparently no action in 3 hours.
Shaker Extract of Malt	Brownish-red	Aromatic	Mobile liquid	Apparently no action in 3 hours.

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The starch paste used was prepared by boiling thoroughly 60 grains of starch with 6 ounces of water, and allowing the mass to cool. The table shows the average of twenty assays with reference to the time required for the conversion of four parts of starch to one part of extract of 65° C. (150° F.).

The iodine solution used in testing the progress of the conversion of the starch, was made as follows:

Iodine	8 grains.
Potassium iodide . . .	16 "
Water	1 ounce.

Six drops of this mixture were diluted with two ounces of water for a working solution.

In testing the comparative convertive power of extracts of malt, a given quantity of each extract should be diluted with its own bulk of tepid water, and added to equal quantities of starch solution (prepared as above) at a temperature of 65° C (150° F.), and the mixture thoroughly stirred, and finally covered with a watch glass to prevent evaporation. The temperature is to be maintained at 65° C., and from time to time a drop of each mixture should be removed and tested with the iodine solution on a porcelain plate or watch glass, or in a small vial. The iodine solution with the starch will produce a deep blue color; but as the conversion of the starch progresses the color produced will vary, becoming purple, lilac, wine-red, and finally nearly colorless, which will complete the action.

It is essential that several precautions should be observed in performing these tests:

1. The iodine solution should not be stronger than that given in the above formula.

2. In comparative examinations of malt extracts, the whole amount of starch required should be gelatinized at one time, and the same should be used for all the samples. The starch liquid should be thin, and free from lumps.

3. An aqueous solution of iodide should be used, and should be freshly made. The presence of alcohol in considerable quantity will destroy the delicacy of the reaction with starch.

4. Samples of the mixture of extract and starch liquid undergoing conversion should be allowed to cool slightly before testing.

5. The mixture should be thoroughly stirred immediately after the addition of the extract.

6. Variation in temperature during conversion is to be avoided.

It will be noticed in the above table that the Forbes liquor diastase gave the best results, and was followed by Trommer's extract, after which came the W. S. Merrel & Co.'s malt. The remaining five extracts showing practically no diastastic properties, and, as far as their value in this direction is concerned, in two cases as much beer, and in the others an equal amount of molasses, would be of almost if not quite as much benefit to the consumer.

Some pharmacists appear to be ignorant of the requisites of extract of malt, and merely consider it an agreeable medium for the administration of repulsive medicines. Considering the methods which are recommended for its preparation, it is impossible to obtain anything but a thick molasses-like mass, with the diastase almost if not completely destroyed. The following is quoted from one of the late dispensatories:

"One part of ground barley is macerated for three hours with its own weight of water; 4 parts of water are then added, and the whole digested for an hour at 65° C., heated to the boiling point, and at once expressed and strained. The clear liquid is rapidly evaporated to the consistence of a thick extract."

By this it will be seen that most of the diastase will be used up in converting the starchy bodies present during the one hour digestion at 64° C., and the remainder will be destroyed by the subsequent boiling.

The latest editions of the dispensatories give the method recommended in the new U.S. Pharmacopœia, which is as follows:

"Malt in coarse powder, not finer than No. 12, 100 parts; water, a sufficient quantity. Upon the powder, contained in a suitable vessel, pour 100 parts of water, and macerate for six hours. Then add 400 parts of water, heated to 30° C., and digest for one hour at a temperature not exceeding 55° C.; strain the mixture with strong expression. Finally, by means of a water bath, or vacuum apparatus, at a temperature not exceeding 55° C., evaporate the strained liquid rapidly to the consistence of thick honey."

This method is a vast improvement over the old one, but still much of the diastase will be used up during the digestion at 55° C., and also during the evaporation, and the product will be an insipid mass possessing little diastatic activity. The aim seems to be to obtain an extract in the form of a thick sticky mass, while a thin liquid is much more palatable and more desirable in every way. Therefore why this long, tedious, and destructive evaporation! Is it simply to make it "keep?" If so, let a different method of preservation be adopted.

The method patented by Forbes in 1883 removes these difficulties and gives a product which fulfils all the requirements. It is as follows: Percolate or macerate (with subsequent expression) the malt, ground to coarse powder, with a mixture of one part alcohol and three parts water at about 37½° C. (100° F.), evaporate (below 100° F.) or dilute to the required strength, The extract prepared in this way is practically free from starch and other impurities.

If we examine the animal organism, we find several ferments which are analogous to diastase, and by some investigators they are considered identical. Diastastic reactions play an important part in the animal economy, and especially in the digestion of starchy food. In the saliva we have ptyalin; in the pancreatic juice there exists an analogous fermentive principle in such quantity as to cause that secretion to act infinitely more rapidly on starch than saliva; in fact, its action is almost instantaneous. In the liver we also find a similar, if not identical ferment, which, in conjunction with the blood, converts the glycogen (animal starch) into sugar. The chemical phenomena of nutrition in vegetables and animals furnish a striking parallel, as shown by M. C. Bernard, who says:

"The ferment appears in seeds from the commencement of germination; this takes place in the potato in

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spring; then the fermentiferous agent shows itself in the tubercle, as it did in the germinated barley. It liquefies the starch and puts it into a condition to be distributed over the parts where it may minister to the nutrition; that is to say, to the development of the life of the plant. In most animals the phase of the production of glycogen, and that of its fermentation, are not so distinct as plants. The two phenomena are often continuous and simultaneous. An exception must, however, be made with respect to the earliest periods of life, especially in those animals which undergo metamorphosis. For example, if we consider the larva of the common fly, musca lucelia, the gentle—if we call it by its common name—we find that it contains an enormous quantity of starch. It is truly a bag full of glycogen. At this time we find nothing else but glycogen, and not even a trace of sugar. The reason for this is that the glucose ferment does not yet exist. But soon the chrysalis will succeed to the larva, and then in the new phase of existence, during which the perfect animal is in formation, the reserve glycogen must be utilized, the ferment appears, and the starch is liquefied."

"Something analogous to this is seen in beings of a higher order—for example, among the mammalia at that period of embryonic life when the nutrition is hastened, and the plastic and formative activity attains its highest degree. The glycogen matter is deposited at various points of the fœtus and of its envelopes, is set in motion, dissolved, and transformed into sugar."

"The digestion of starches consists in their transformation into soluble and assimilable substances, soluble in order to be able to circulate from one part of the organism to another. Digestion is, therefore, the prologue of the act of nutrition. Whenever these starchy matters are to nourish an organism we shall find this previous preparation. But all organisms in the vegetable, as well as in the animal kingdom, employ starchy substances as food; all, therefore, digest these substances in the strict sense of the word."

It has been proved by the experiments of Cl. Bernard, Magendie, Schiff, and Hensen, that in living blood there exists a ferment capable of converting starch and glycogen into sugar. This ferment is even found in the blood of frogs in spring and summer, when, if dextrine be injected into their veins, it passes in the form of sugar with the urine; in winter it is not present, for the dextrine then passes with the urine unaltered.

Thus it is seen that diastase plays an important part in digestion by transforming the starches into soluble substances which are readily assimilated; and there seems to be no reason why a pharmaceutical preparation containing diastase, if properly prepared, would not be a medicine of great value; but it is to be regretted that many of the preparations on the market at present are of little or no value.

DISINFECTANTS.

PRELIMINARY REPORTS OF THE COMMITTEE ON DISINFECTANTS OF THE AMERICAN PUBLIC HEALTH ASSOCIATION.

XVI.

NOTES.

BY THE CHAIRMAN OF THE COMMITTEE.

My attention has just been called to an advertisement of "Withers's Antizymotic Solution," in which it is stated that it is endorsed as the best by George M. Sternberg, M.D., Surgeon U. S. A.

I have never authorized the use of my name in connection with this or any other proprietary disinfectant. The only reference I have ever made to "Withers's Antizymotic Solution" is in the report on "Commercial Disinfectants," No. 2, published in THE MEDICAL NEWS of June 13th, where this has the *third* place in a list of fourteen commercial disinfectants, tested under my direction by Dr. Abbott. The remark is made, "contains mercuric chloride." As a simple solution of mercuric chloride of 1 : 500 would be quite as efficient as 4 per cent. solution of this disinfectant, the extravagant claims made for it are without foundation. The assertion, that it is endorsed by me "as the best," is untrue.

Labarraque's Solution.—I have received the following letter from a well-known and reputable firm of manufacturing chemists:

"In THE MEDICAL NEWS (Philadelphia), for June 13th, we find a continuation of the Preliminary Report of the Committee on Disinfectants, including a report on the relative percentage of available chlorine, in samples of different manufacturers of Labarraque's Solution. As you are doubtless aware, Labarraque's Solution is a very unstable preparation; and, although made with every possible care, will surely deteriorate by age. With such an article it is manifestly unfair to institute comparisons between different makers without regard to the freshness, or otherwise, of the samples. To the unthinking reader the bald statement that one preparation contains 3.8 per cent., and another only 0.013, is calculated to convey the impression that the preparation which contained so small a percentage has been improperly made (while really when fresh its percentage might have been greater than the highest named); and such an impression would naturally create a prejudice against the manufacturer, and, unfortunately, not be limited to the particular article mentioned."

I recognize the fact that the unthinking reader might make an inference unfair to the manufacturer from the perusal of a "bald statement," such as is published in the table on page 659 of THE NEWS. I regret this, and will in future gladly give the date of manufacture, if the manufacturers will stamp it upon the bottle. As I propose to obtain new samples from time to time, and to publish the results of tests as to available chlorine, it may happen that the aggrieved manufacturers in this instance will come out at the head of the list the next time. But these tests are made especially in the interests of the public, which, from my point of view, are superior to those of the manufacturers, and it is evident that great harm might result from reliance upon the disinfecting power of a liquid labelled "Labarraque's Solution," which contained only 0.013 per cent. of available chlorine. The fact that it was of full strength when first manufactured, does not add to its value as a disinfectant for the excreta of a patient with cholera or typhoid fever. If the manufacturers will stamp the date of manufacture upon the label attached to each bottle, I will publish it, in future, in connection with the result of the tests to determine available chlorine present in the solution.

Disinfecting and Antiseptic Powder.—The powder under this name, for which a formula was given in

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the Preliminary Report, No. IX. (THE MEDICAL NEWS of April 18th, p. 425), was withdrawn in a letter published in THE NEWS of May 2d.

The writer was responsible for this powder, and withdrew it because of the fact that mercuric chloride is decomposed by the hypochlorites in the presence of moisture. In the powder, made as directed, this reaction does not occur, and the keeping properties of the powder are all that could be desired. But when water is added to it the reaction occurs, and the yellow oxide of mercury is precipitated. This fact having been brought to my attention I hastened to withdraw my recommendation of the powder, although I had been much pleased with it in practical tests upon feces. Since my return from Europe I have made some additional experiments, which show that, notwithstanding the destruction of the bichloride, the powder is an excellent disinfectant and antiseptic. A sample which I have recently examined contained 2.6 per cent. of available chlorine after the precipitation of the yellow oxide by the addition of water. This same sample, after standing in an open box in the laboratory for about three weeks, still contained 1.5 per cent. of available chlorine at the bottom of the box, and 1 per cent. at the surface of the powder, which had been exposed to the air during this time. I have demonstrated, by recent experiment, that mercuric oxide is a valuable antiseptic. In the proportion of 1 : 2000 it retards the development of microörganisms in beef-tea inoculated with two or three drops of broken-down stock; and in the proportion of 1 : 1000 it entirely prevented development for a week, the duration of the experiment, while in the comparative test the beef-tea broke down in less than twenty-four hours. Nevertheless, I do not endorse the formula which I first recommended, for the reason that mercuric oxide has an antiseptic power inferior to that of the bichloride, and it is a waste of material to use the bichloride of mercury in the same formula with the hypochlorites. I would, therefore, recommend that the powder be made without the addition of mercuric chloride.

My object is to dilute the chloride of lime so that it may be used more economically, *especially upon the surface of fecal matter in privy vaults*. Such a powder is especially needed in country places, where the old-fashioned, open privy vaults are in use, and in garrisons and military encampments.

Chloride of lime, as received from the manufacturers, is more or less lumpy, and cannot be readily scattered about in a uniform manner. It is also much stronger in chlorine than is necessary. I have, therefore, endeavored to find an inert substance suitable for diluting it.

Plaster of Paris has the advantage of retaining the chlorine better than anything else I have tried, and makes a powder which can be readily scattered about in a thin layer. Its property of setting with water is no objection to its use in privy vaults, cesspools, etc., but would be an objection to its use in chamber vessels, the contents of which were to be thrown into water closets.

To test the keeping properties of a mixture of chloride of lime and sulphate of lime, mixed together in equal quantities, by weight, I exposed a layer having a thickness of about one and a half inches in a shallow vessel, and, for comparison, a mixture of equal parts of chloride of lime and sand in a similar vessel. At the outset of the experiment the available chlorine in each specimen was found, by Dr. Abbott, to be 15 per cent. At the end of a week the mixture with plaster contained 12.9 per cent. of available chlorine, and the mixture with sand 6.8 per cent. At the same time two fruit jars were filled about one-third full with the two mixtures, and the metal covers were screwed on. In these closed jars the mixture with sulphate of lime contained 13.5 per cent. of available chlorine at the end of two weeks, and the mixture with sand 11.8 per cent.

A CASE OF MELANO-SARCOMA.

BY W. A. ROTHACKER, M.D. AND J. A. THOMPSON, M.D., OF CINCINNATI, OHIO.

CHARLES W., an American, aged 56 years, was admitted to the Cincinnati Hospital for the first time Nov. 20, 1882. He is a carpenter by trade, of good physique, and excellent habits. There is a family history of tuberculosis in some distant relatives but no other hereditary taint. Two years before admission he noticed what he calls a blood cyst on his back about the level of the lower angle of the scapula and one-half inch to the right of the spinal column. He attributes its formation to a knot tied in his suspenders which irritated the skin at the point of contact. This cyst was opened by a friend with a needle and bled profusely. Since that time it has been growing slowly, and is now the size of a goose egg. It is globular in shape, its attachment to the body being its smallest part. It is bluish-black in color. No pulsation can be felt. Four inches below this tumor is another small bluish-looking growth under the skin.

December 3.—Both tumors were removed by Dr. D. S. Young by oval incisions, and the edges of the wounds approximated by sutures.

7th.—There is extensive inflammation about the wounds. The sutures were removed and the wounds dressed with lint and vaseline, and quinine given internally.

10th.—The wound is discharging freely and granulations are forming. Only the upper two sutures have united.

21st.—The wound is healing rapidly by granulation, and, at the patient's own request, he was discharged to spend Christmas with his family.

To Dr. L. A. Nippert, of Minneapolis, Minn., at the time a surgical interne in the Cincinnati Hospital, we are indebted for the preceding notes. No microscopic examination of the tumors (which were believed to be nævi) was made at this time.

He was readmitted to the hospital August 29, 1883, with tumors varying in size from that of a pea to that of a hen's egg, covering all parts of the body, the feet alone excepted.

These tumors seem to take their origin from the subcutaneous connective tissue; and where the skin is not involved in the growth, there is no visible discoloration. But where the skin is involved in the

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morbid growth, it is of a bluish-black color. The patient states that a tumor appeared on his back directly above the site of the larger growth, removed at his previous visit to the hospital, before the operation wound had healed, but it did not prevent the perfect closing of the wound. The cicatrix has never ulcerated, been painful, nor given trouble in any way.

He did not notice any other growths until about six months after the operation, when one appeared over the anterior edge of the right sterno-mastoid muscle on a level with the angle of the jaw. This tumor at present is multiple and about the size of a hen's egg. Discovering it, he examined his body, and found the tumors, as yet small in size, all over it. At the present time (August 29, 1883) there are visible over his body five hundred and sixty-one tumors.

Three hundred and twenty-seven are not visibly pigmented, and two hundred and thirty-four show marked discoloration. By passing the hand over the skin where it appears sound and healthy other small tumors can be felt in the subcutaneous connective tissue, apparently about the size of shot. Three of the larger tumors have ulcerated, as the result of some local applications made by a firm of advertising quacks, and are now covered by scabs.

The patient states that about eight weeks ago his testicles began to swell rapidly, and continued to increase in size until about two weeks ago, when the swelling partially subsided. The scrotum is now about the size of two fists, bluish-black in color, and firmly adherent to the testicles. The left testicle is much more enlarged than the right. The only thing abnormal found on physical examination was a systolic murmur, heard at the apex beat of the heart and transmitted to the left scapular and axillary regions.

The urinalysis showed sp. gr. 1010, acid, dark in color, with faint traces of albumen, but no sugar. Microscopic examination showed the dark color to be due to numerous dark brown or black pigment granules. The patient complains only of weakness and occasional pains in the more prominent tumors. Pulse 92; temperature and respiration normal. Ordered citrate of iron and quinine, grs. v, and opium gr. ss t. d.

September 2.—His stools are jet black.

3d.—He complains of intense burning pain in some of the tumors. Ordered morphia gr. ¼ every two hours.

9th.—Began to complain of obstinate nausea and constipation, apparently the result of the opiates given to relieve pain.

October 12.—At present there are about one thousand tumors visible over the body, most of them pigmented, bluish-black in color. Many are quite small, having developed since the last count was made. During the latter part of September the foreskin became indurated and swollen. This condition showed great variations, the foreskin being at times very much swollen and at others normal. The patient's strength failed rapidly. His skin became much darker in color, and the areas of pigmentation around the tumors in some places coalesced. Seeing the inevitable end of his sickness he desired to be with his family, and was discharged from the hospital at his own request.

He was under the care of Prof. P. S. Conner the last four weeks of his stay in the hospital. After leaving this institution he was treated by his family physician, Dr. W. H. Taylor, to whom we are indebted for the following brief note of his condition while under his observation: His strength failed rapidly and he suffered so much that it was necessary to keep him constantly under the influence of opiates. He died from exhaustion October 18.

A post-mortem examination was made the next day by Dr. Thompson assisted by Drs. Taylor, Langdon, and Walker, and the following results noted: Body that of a man of medium size, and very much emaciated. Rigor mortis slight. The skin was generally dark in color, but in some places had an ashen hue.

Over the entire surface of the body numerous tumors could be seen, mostly of small size. Some of the tumors were bluish-black, while others did not differ in color from that of the skin. On making the first incision and laying back the flaps it was seen that all the tumors were alike pigmented, the difference in color before noted being due to the involvement of the skin in the morbid growth over those that appeared black, while the others were limited to the subcutaneous cellular tissue. There were several tumors about the size of a hazelnut in the substance of the right pectoralis major muscle. The lungs were œdematous, jet-black in color, but contained no tumors. There were slight pleuritic adhesions over both lungs and an old cicatrix in the lower lobe of the right lung.

There were several small tumors in the muscular substance of the heart. In the subserous connective tissue over the left ventricle was a large patch of jet-black pigment. Some calcareous nodules were found in the aortic valves. The other valves appeared normal and competent.

The liver was firm, markedly pigmented, and contained numerous tumors, some as large as a walnut. Several of these large tumors were encapsulated.

The spleen was very deeply pigmented, and its tissues soft and friable, but it contained no tumors. A small supernumerary spleen was found.

The kidneys were enlarged, deeply pigmented, and each kidney contained several tumors varying in size from that of a pea to that of a hazelnut.

There were numerous tumors about the size of a pea in the subserous connective tissue throughout the whole length of the large and small intestine, and numerous similar growths in the great omentum and beneath the parietal peritoneum.

One small tumor was found projecting from the mucous lining of the bladder.

Owing to the objection of relatives, the brain was not examined.

Specimens of the tumors when subjected to microscopic examination, showed the characteristic structure of sarcomata.

There are very few cases on record similar to the one above reported. On October 10, 1882 Dr. William H. Falls of this city, presented to the Cincinnati Medical Society the report of a case of melanosis.

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The case was that of a man at Greenville, Ohio, who had several small tumors—diagnosed congenital nævi—removed, after which operation there developed a number of pigmented nodules in and beneath the skin, accompanied by a general pigmentation of the skin, which eventually became so dark that the patient was easily mistaken for a negro. Dr. Falls, in his report, has not only given a thoroughly scientific account of his case together with the results of the post mortem and microscopic examination, but he has brought together almost, if not quite all that was known up to that time of this strange condition. Dr. Falls's paper was published in the Cincinnati *Lancet and Clinic*, November 18, 1882, and afterwards republished in pamphlet form, so that it is quite accessible to the profession.

In vol. xxxv., 1884, of the *Transactions of the Pathological Society of London*, a very interesting case of melano-sarcoma with subsequent general pigmentation of the body, formation of pigmented nodules in the skin and internal organs, is recorded by Dr. J. Wickham Legg. As the reports of the Pathological Society are not to be found, except in the larger libraries, a synopsis of the case is given. Dr. Legg's own words are used except where changes and omissions are required in order to condense the report. "James H., a carpenter, was admitted into St. Bartholomew's Hospital under my care July 1, 1883. His left eye was taken out on November 14, 1881, at the Royal London Ophthalmic Hospital, Moorfields, by Mr. Streatfeild, to whom I am indebted for the following particulars: Four months before, the left eye had felt tight and gummy, not acting with the right. No pain was felt. A solid growth could be seen involving the retina. When the eye was excised a soft tumor was found filling up the outer half of the globe. It was a black growth in the outer part of the ciliary region, firmly adherent to the sclerotic.

"Under the microscope the black tumor proved to be a spindle-celled sarcoma with a large quantity of pigment irregularly scattered through it.

"The patient left Moorfields November 19, 1881. For a fortnight before his admission to St. Bartholomew's, his belly had been hard and uncomfortable, and for a year it had been painful when pressed. The legs have been swollen for the last six weeks, the scrotum and penis, a fortnight. Almost six months ago he was told that his face was getting dark. The appearance of the face so strongly suggested staining by nitrate of silver that he was carefully questioned as to his use of this salt. A most thorough investigation showed that he had never used nitrate of silver in any shape, nor had it ever been used locally or internally in his case by any of the physicians or surgeons who had treated him at various periods of his life.

"The pigmentation of the face was uniform and not in patches or spots. Under the beard on the right side of the chin was a little black wen, or wart. The teeth had nearly all fallen from their sockets. No pigmentation of the mucous membrane of the mouth was noticed. The darkening was most marked over the face and neck. It was present on the hands, but very little over the rest of the body.

"Heart and lungs normal on examination. The belly was swollen. On the right side a tumor, continuous with the liver dulness, extended to the right iliac fossa. In the epigastrium a small nodule could be felt, making itself prominent above the general level of the surface of the tumor. This nodule was very painful on pressure. The spleen could not be felt. The belly was dull in the left flank, the dulness changing with the position of the patient. The urine was of a dark dirty-brown color, turbid, but clearing on heating. It contained albumen. No blood corpuscles were found.

"*July 13.*—Patient getting weaker. Liver very painful.

"*25th.*—Under the microscope the blood showed no dark granules, but an abundance of bodies of varying size and shape, usually very large and very irregular, looking like masses of white corpuscles fused together.

"*August 1.*—Urine gives deep brown color with hydrochloric acid and chloride of calcium which deepens, on standing, to black. No dark granules have ever been found in the urine.

"Died August 1. Examination twenty-six hours after death.

"Calvaria and brain natural. No recurrence of disease in the left orbit. Choroid plexus of brain not stained. On opening the belly, an abundance of dark colored fluid escaped. Liver adherent to abdominal walls, omentum, colon, and stomach. There are hemorrhages in the peritoneum.

"Four or five small dark spots in the endocardium on the right as well as the left side. A few small, firm, white nodules in the omentum and capsule of the spleen. Intestines, stomach, and pancreas natural.

"In the hilus of the liver there are several large glands, some dark, one cheesy and white. Gall-ducts free, gall-bladder collapsed. No thrombus in the portal vein. Liver weighs 5700 grammes. Numerous black and white spots are seen through the capsule. Section shows little of the normal liver tissue, the organ being filled up with numerous black rounded tumors, varying in size from a pin's point to a walnut. A few white tumors varying in size from a pin's point to a filbert, but no tumors showing an admixture of black and white. Diaphragm shows numerous small growths, both on the pleural and peritoneal surfaces. Left kidney contains a black rounded tumor the size of a filbert. None in right. After proper preparation, the growths from the various organs and the skin were examined under the microscope, and proved to be melanotic spindle-celled sarcomata in the case of the pigmented growths and round-celled sarcomata in the case of the colorless growths. The distribution of the pigment was very irregular in the black tumors. The skin near the wart on the face showed brown staining in the deep layer of the rete mucosum but no distinct pigment granules were discovered.

"Mr. Butler, who saw the case with me, called my attention to Clausel's thesis, and told me that this observer had discovered pigment granules in the blood, the urine, and the vomit of patients suffering from melanotic sarcomata. Nepveu first called attention to the appearance of pigment granules in the

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blood and urine of these patients in a communication to the Society of Biology (Paris) in 1872. In our case there was the excess of white corpuscles described by Nepveu, but no pigment granules.

"While the urine was dark-colored, no black granules or black casts were found. This absence of granules in so widespread a case of multiple melanosis, is important, as Nepveu considers the presence of the black granules in the blood and in the urine a contraindication to operation; and if a surgeon had considered their absence to be a justification for an operation, he would have been seriously mistaken."

It is the aim of this paper to bring the literature of this subject to date. There are a few cases which are recorded in medical journals not within reach of the writer. We know comparatively little of the process by which pigment is deposited in tissues; we know less of the changes which take place in the blood whereby a general tendency to pigment deposit is developed.

Cases are on record where nævi have been transformed into sarcomata. Were the nævi which were removed in the cases where multiple melanosis afterwards developed in process of transformation at the time of surgical interference? Did this surgical interference open up ways by which the elements of the malignant growths entered directly or indirectly the circulation producing the disastrous general dissemination?

Were the seeds already sown in the blood when the surgeon's knife was brought into requisition, and did the operation of removing a nævus or suspicious growth have no bearing on the after extension of the condition?

Can the surgeon, in a case of doubtful tumor, or where the diagnosis is clear as to sarcoma, derive any useful points from the microscopic examination of the blood and urine?

Do not such cases as the case of Williams and others point to the need of an early removal of congenital nævi, warts, moles, etc.?

These are practical questions which our clinical records will not as yet permit us to answer, but which should be kept in mind in future observations.

MEDICAL PROGRESS.

COCAINE IN HAY FEVER.—The therapeutical uses of cocaine are so numerous that the value of this wonderful remedy seems only beginning to be appreciated. Almost daily we hear of some disease or combination of symptoms in which it has been tried for the first time and has answered beyond expectation. It appears strange that so intractable a complaint as hay fever should be amenable to its influence, and yet such is the case. The account given by Mr. Watson, of the Westminister Hospital, of his sufferings and subsequent cure by tabloids of cocaine, is too circumstantial to admit of doubt, even had we not received confirmatory evidence from many sources. It has been objected on theoretical grounds that cocaine must of necessity be inoperative, or at all events of comparatively little use, in those cases in which symptoms of an asthmatic type prevail. Curiously enough, however, it has been shown that cocaine, when applied to the mucous membrane of the nostrils, has the power of allaying even this spasm. The observation, too, is not new; for many months ago Dr. Bosworth, Professor of Laryngology at Bellevue Hospital Medical College, published a detailed account of a case of spasmodic asthma completely cured by cocaine. He pointed out at the time that many inveterate cases of asthma are dependent on, or at all events associated with, nasal disorders, the relief of which is promptly followed by an abatement of all the distressing symptoms. If this principle of associated treatment should be carried on in its integrity, it will be difficult to assign the limits of its sphere of action.—*The Lancet*, July 18, 1885.

ALBUMINURIA: ITS CAUSES AND VARIETIES.—SENATOR, in the *Berliner med. Wochenschrift*, No. 16, April 20, 1885, enumerates the following conditions liable to determine the presence of albumen in appreciable amount in the urine:

Disturbances of the renal circulation. High pressure, if the urine be concentrated, should produce albumen. This condition is actually found to obtain by muscular action, on account of perspiration and loss of fluid by the lungs, and, though not so accurately, by elevation of temperature.

Passive hyperæmia acts in itself similarly to increased arterial tension, but the distended veins in the medulla of the kidneys press together the urinary tubes, leading to obstruction of the passage of urine and œdema of the kidneys. The consequence is:

a. That albumen transudes from the interstitial capillaries into the urinary tubes.

b. That urine exerting pressure upon the glomeruli produces a diminution of pressure from the glomeruli, and leads to a relative increase of excretion of albumen. To this cause of albuminuria is allied that caused by blocking of the urinary tract, manifested when the impediment is removed, or when the obstruction is not complete.

c. The condition of the filtering membrane, as in inflammation, fatty degeneration, and amyloid change. Not only does albuminuria result from an increased permeability, but the degenerated membranes and epithelium themselves appear in the urine as albumens, and this may explain the fact that in the urine albumens may have a different relation to each other from what exists in the blood. The substance of the epithelium appears to contain a body intimately allied with globulin.

d. The composition of the blood may cause the appearance of albumen, *e.g.*, from an excess of nutriment, from increased dissolution of albumen, or from excessive secretion of water elsewhere, etc. It is held by Rosenbach, that the composition of the blood is constantly regulated by the action of the kidneys, and that inassimilable albumen is excreted by the kidneys. Albuminuria not caused by inflammation, this author designates as "regulatory." His idea, though important, is not free from objections.

Finally, as Stokvis and Lehman have pointed out, the excretion of albumen can act injuriously on the kidneys.

e. Mention has already been made of the influence of temperature in connection with changes of pressure.

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The author further remarks tha the forms of albuminuria may be clinically divided into two classes, pathological and physiological, although no exact line of demarcation distinguishes them. Among physiological albuminurias may be mentioned that of the newborn, which is probably due to the suddenly increased pressure in the glomeruli, taken in connection with the probably increased destruction of the blood-corpuscles.

Albuminuria can exist in a healthy man for years without any sign of ill-health, and then cease.

Fürbringer, too, has found this condition in children, in whom chronic nephritis is very rare.

The author, in this connection, alludes to the albuminuria due to mental perturbation, and to that caused by cold baths.

Pathological albuminuria includes the following:

1. That present in non-febrile diseases, in which the composition of the blood is specially concerned, and in which the kidneys do not participate to any extent; in anæmia, leukæmia, and pseudo-leukæmia; in scurvy, in icterus, and in certain cases of diabetes. Nothing is found in the urine indicative of renal disease.

2. Albuminuria in non-febrile nervous diseases, in epileptic seizures, delirium tremens, cerebral apoplexy, neurasthenia, migraine, Basedow's disease, etc., and allowing for other existing causes, numerous cases exist where the albuminuria is traceable only to the nervous condition.

3. Febrile albuminuria. In this condition there is a combination of favoring causes, such as high temperature, febrile changes in the circulation and in the composition of the blood, with consequent disturbance of the nutrition of the kidneys, and, lastly, concentration of urine.

4. Albuminuria of passive hyperæmia.

5. That due to blocking of the urine.

6. The albuminuria of pregnancy due to various causes, disturbance of the lesser circulation, passive hyperæmia due to abdominal pressure on the vessels, and constriction of the ureters.

7. That due to diffuse inflammation and degeneration of the kidneys (acute nephritis, subacute and chronic and amyloid degeneration).

8. That depending on circumscribed affections of the kidneys, such as infarcts, abscesses, and tumors.

In conclusion, the author insists on the necessity of constantly remembering that the treatment of each individual case of albuminuria varies with the exciting cause.

GASTROSTOMY IN LEYDEN.—PROF. VAN ITERSON, of Leyden, has published notes of two interesting cases in which he performed gastrostomy. The first case was that of a gentleman, aged fifty, who had carcinoma of the œsophagus, and who had been unable to swallow any food for several days before the operation, and was consequently reduced to a state of great emaciation and debility. The abdominal wall was opened and the stomach fastened to it, arrangements being made for supporting life by means of nutrient enemata until it should be thought safe to open the stomach. Collapse, however, came on shortly after the operation, and death supervened. The Professor says, that if he had another similar case he would open the stomach at a single operation. The second case was more satisfactory, and was that of a painter, aged fifty-seven, who suffered from a carcinomatous tumor affecting the suprascapular region, the neck, pharynx, œsophagus, and larynx. When seen in July, 1884, he had had difficulty in swallowing for about a year, the last four months of which time he had been unable to take any solid food. A small bougie (No. 27 Charrière) was with great difficulty passed through the stricture. The first part of the operation was performed on the 16th of July under an anæsthetic, with antiseptics, but without spray, and consisted in opening the abdominal wall, lifting aside the liver, seizing the wall of the stomach as high up as possible, and attaching it with ligatures very carefully to the abdominal wound. This was dressed with powdered iodoform and salicylic wool. The patient was supported by nutrient peptonized enemata for six days, when an opening was made in the stomach with the galvano-cautery sufficient to admit the end of a three-quarter centimetre India-rubber tube; the other end of this was provided with a funnel. At first, liquid nourishment was administered through this; then solid food was chewed in the mouth and spat into the funnel, the India-rubber tube being thus an artificial œsophagus. The patient expressed himself as well satisfied by this method of feeding. He left the hospital three months after the operation. Two months later (November) he returned, complaining of dyspnœa from obstruction of the larynx. Tracheotomy was performed, and a month later it was noted that his daily nourishment consisted of five slices of bread, two eggs, one cup of soup, one beer-glass of port wine, one ounce of raw beefsteak with potatoes, greens, and rice, and one litre of milk. Two months later, or eight months after the operation, the malignant tumor increased considerably, and hemorrhage occurred, which in a few days induced a fatal termination of the case. At the autopsy the stomach was found attached to the abdominal wall for about the size of the surface of a dollar. The fistula was 70 millimetres to the left of the cardia, 240 from the pylorus, and 40 from the insertion of the omentum. The mucous membrane was pale, but healthy; above, the stomach was found adherent to the diaphragm. Frofessor van Iterson remarks that few cases have lived eight months and a week after this operation. He agrees with the advice given by other surgeons that the opening into the stomach should be as far as possible from the pylorus. In both cases he was able by means of a sharp hook to bring the most suitable portion of the stomach to the wound.—*The Lancet*, August 8, 1885.

STRANGULATED UMBILICAL HERNIA. REMOVAL OF SIX INCHES OF SMALL INTESTINE. RECOVERY.—MR. W. H. FALKER reports a case of strangulated hernia resulting in recovery after removal of six inches of the small intestine. The patient, a woman aged forty-seven was admitted to the infirmary suffering from strangulated umbilical hernia. About twelve years ago, whilst carrying a basket, she suddenly felt something give way at the umbilicus, and a swelling arose, accompanied by pain and sickness. These symptoms subsided in three days, but since that time she had had several recurrences, generally lasting only a few hours, and being relieved by her assuming a recumbent position.

On February 25th, the patient had a return of all the symptoms, but attended with a burning pain, which continued to increase. She was induced to send for a

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medical man, who urged her to apply at once to the infirmary. At first she declined, but the pain and sickness increasing, she came in on the 28th.

On admission, the patient, a corpulent woman, appeared to be in a most exhausted condition, suffering from almost constant vomiting of a fecal character. She had a large umbilical hernia, evidently not only strangulated, but gangrenous, for even the skin covering it was quite black, and smelt most offensively.

Immediate operation was resorted to, the patient being cautiously etherized. An incision was made, of the length of the tumor, opening the sac, when a large piece of bowel was found to be quite black, the contents having escaped into the sac through an opening about an inch and a half in length; the omentum and everything within the incision was gangrenous. The skin and everything that was sloughing, except the bowel, was first removed, and the cavity well washed out with carbolic lotion, and then the bowel (which was small intestine) was drawn well forward till a sound portion was reached at each side; the inner halves of each portion were cut through and carefully stitched together, with their peritoneal surfaces in contact, the outer half of each piece of bowel affording a secure hold whilst this was being done; these were then removed, and the cut edges secured to the skin, forming an artificial anus. The edges of the skin below were brought together by two harelip-pins, and the parts dressed with oiled lint (carbolic oil 1 in 20), covered with absorbent wool, a wide flannel roller being applied over all. She was ordered to have the urine drawn regularly with the catheter, and to take ice and soda-water.

February 29th (the day following the operation). The temperature was normal. There was fecal discharge from the bowel-opening. The patient was looking better, although vomiting, with a fecal odor, still continued, and she had some little pain. A subcutaneous injection of morphia was given, which relieved the pain and checked the sickness. The skin over the abdomen was covered with oxide of zinc ointment spread on lint.

April 9th, the patient informed the physician in charge of her probable pregnancy; examination showed her to be so and after consultation abortion was performed, from which she recovered fully.

All efforts to close the artificial opening in the bowel were ineffectual. By the use of enemata a natural motion first occurred on June 23d and again on June 26th. Efforts again repeated to close the external wound by refreshing its edges and suturing them were all unsuccessful. September 22d, a motion of the bowels occurred for the firs time without enemata, and again on the 29th. This did not occur again, and enemata were once more resorted to and always with good result. Fecal matter, however, continued to well up through the wound, though it was reduced to the size of a three-penny piece.

The woman was discharged at her own request, and remains exactly in the same condition as when she left the infirmary.—*British Medical Journal*, August 15, 1885.

LEAD POISONING BY LONG-CONTINUED PAINTING OF THE FACE.—PROF. ROSENTHAL recently showed, at the Society of Physicians of Vienna, an interesting case which had been under his treatment as an out-patient at the "Allegemeines Krankenhaus." The patient, an actor, aged thirty-seven, had long noticed an emaciation of the fingers of his right hand. Prof. Rosenthal found, on examination with the electrical current, a loss of power and of faradic irritability in the common extensors of the fingers, and in the lumbricales as well as in the fourth interosseous; galvanic contractility was not lost. The supinator longus was not affected, but the irritability of the radial nerve was much diminished. The left hand was normal, except that the power of abducting the thumb was somewhat impaired. The idea that it was a case of paralysis caused by pressure was abandoned in view of the slow development of the case, the implication of the fourth interosseous muscle, and the normal state of the supinator. Progressive muscular atrophy was also excluded, as the development and reaction of the muscles of the thumb were normal, and there was no muscular atrophy of the arm, though the irritability was diminished. The whole complex of symptoms, however, induced Prof. Rosenthal to diagnosticate lead poisoning. He, therefore, had the gray and red paint that had been used examined by Prof. Ludwig, who found that both contained a considerable proportion of lead.—*Medical Times*, August 15, 1885.

THE TREATMENT OF SYPHILIS BY INJECTIONS OF CALOMEL.—V. WATRASZEWSKI, in the *Viertel Jahrschrift für Dermatologie und Syphilis*, Bd. xi., reports the subcutaneous injection of calomel in seventy cases of recent syphilis. With the exception of a few cases in which the dose was doubled, the drug was injected in quantities of one and a half grains in solution of cocaine. The injections were commonly made in the gluteal region at intervals varying from seven to ten or fifteen days.

In four instances only was it necessary to increase the intervals on account of mercurial stomatitis. As a rule, three injections were sufficient to cause abatement of the existing symptoms. A fourth injection was, however, generally administered. In only one case was a fifth injection necessary. In two hundred and fifty-seven injections, only four cases of abscess occurred, and these during the first weeks in which the injections were practised.

Inasmuch as abscess did not occur later, it is attributed to faulty injection or to some special condition. The local pain was slight and did not interfere either with the sleep or avocation of the patient.

However, Dr. v. Watraszewski advises that, during the first days after injection, the patient should not move about to any great extent or be permitted to do heavy work. He also calls special attention to the advantages of this method of treatment in reference to outdoor patients.—*Centralblatt für Chirurgie*, August 8, 1885.

ANTIPYRIN IN SCARLET FEVER.—DR. FREDERICO VANANZIO, after a clinical study of the use of antipyrin in scarlet fever, reaches the following conclusions:

1. Antipyrin certainly reduces the temperature in scarlet fever for a length of time and to an extent which vary with the dose and individual; but the fever, on the cessation of the action of the drug, returns with renewed intensity, even when, by the careful diligent use of the

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remedy, it has been possible to suppress it for many hours in succession.

2. During the hyperthermia procured by the administration of antipyrin no appreciable improvement, either subjective or objective, is manifested by the patient, aside from the simple reduction of the fever.

Indeed, the ordinary syndromes and complications of the disease, such as pharyngo-laryngitis, adenitis, nephritis, gastro-enteritis, bronchitis, stupor, coma, etc., are neither prevented nor modified. In the toxic forms when it is desirable to reinforce the cardio-vascular tone antipyrin does not in the least oppose the advance of collapse.

3. Antipyrin does not exercise any favorable influence upon the ordinary duration of the disease. In some circumstances it seems rather to prolong the so-called stage of invasion, and to retard the appearance of the eruption, a fact which has already been noted in rubeola and measles.

4. In some subjects antipyrin induces mydriasis and symptoms of slight cerebral congestion and persistent vomiting which prostrates the patient.—*Gazzetta medica di Torino*, July 25, 1885.

VERATRIA IN THE TREATMENT OF GENERAL OR LOCALIZED PRURITUS.—DR. J. CHÉRON, in the *Lyons Médical*, remarking the difficulty experienced in the treatment of the pruritus often observed at the menopause, whether as due to prurigo, urticaria, eczema, or herpes, or as existing without an eruption, recommends the following ointment:

℞.—Veratria . . . . . gr. iiss.
Adeps . . . . . ʒj.—M.

Ft. unguent. S. Apply in quantities the size of a small pea, morning and evening, by gentle friction to the affected parts when the pruritus is localized in the groins, axillæ, or upon the abdominal wall.

When the pruritus is general the internal administration of the drug is advised:

℞.—Veratria . . . . . gr. ⅓.
Pulv. glycyrrhizæ . . . . q. s.—M.

Ft. pill No. xl.

S. 2 to 6 pills daily, a half hour before meals or three hours after.

A single pill should be taken as an initial dose, and an additional pill taken each day until a maximum of 6 pills daily has been reached.—*Journal de Médecine de Paris*, August 9, 1885.

HEMIPARESIS AND HEMIANÆSTHESIA FOLLOWING DIPHTHERIA.—PROF. ROSENTHAL, at a recent meeting of the Society of Physicians of Vienna, exhibited the following case occurring in his practice, which he considers to be unique. The patient, a girl aged fifteen, had suffered some weeks previously from an inflammation of the throat which got better after the use of a gargle without other medical treatment. The third week after her recovery she felt pains in the right arm and leg, the right hand was powerless to grasp anything, and she could not double her fist. About this time she began to talk through the nose, and the fluids which she took returned by the nostrils; even water could only be sipped occasionally. Diplopia was also complained of. Recently pains in the left leg also appeared, and the fingers of the right hand became insensible. When the patient was examined by Prof. Rosenthal in the sixth week there was paresis of the right arm, the mobility of which was impaired, the grasp of the hand was feeble, and there was loss of power in the right leg. The faradic reaction was everywhere normal, and the tendon reflex was also unaffected. The skin on the right side of the body was insensible to electrical as well as mechanical stimulation. The application of the faradic brush to the arm, the mamma, the abdominal wall, the nates, the thigh and legs, the nape of the neck, and the back, produced no pain, and the same was true of heat and cold. The palatine arch was displaced towards the left side, and both its right half and that of the pharynx, and, according to Dr. Chiari, who had examined the patient with the laryngoscope, the right half of the epiglottis as well suffered from impaired sensibility; besides which there was paresis of the right vocal cord. In the nerve plexus of the arm, and in the course of median and radial nerves on the right side, there were points which were tender on pressure, and the same were to be observed in the case of the peroneal nerve. The excitability of the fifth nerve and the sense of taste were impaired on the right side. There was no symptom of hysteria; and menstruation was regular. All the symptoms pointed to a conducting anæsthesia in the region of the right spinal roots and posterior branches which had been preceded by a condition of irritation. Pierret and Déjerine had found an infiltration of the nerve nucleus and proliferation of neuroglia in the nerve roots and nerve trunks after diphtheria.—*Medical Times*, August 15, 1885.

TERPINE.—R. LÉPINE, at the conclusion of an experimental study of terpine, makes the following résumé of the qualities of the drug:

Clinical observation proves that terpine when ingested is active, but harmless, even in large doses, except to those affected with renal disease, and with whom, on this account, the doses should be moderate. Introduced directly into the blood in doses no longer medicinal but toxic, besides the action which it exercises upon the nervous system, it tends to produce an excess of hæmoglobin in the blood, polycholia, and even hæmoglobinuria.—*Revue de Médecine*, August, 1885.

PARALYSIS OF THE LEFT ARM AND LEG, WITH A SINGULAR EFFECT ON THE PULSE OF THE SOUND ARM.—DR. A. T. GUNNING reports a case of paralysis of the right arm and leg, with singular effect upon the pulse of the sound arm. There was neither motion nor sensation on the affected side. Temperature on both sides was normal. Heart sounds normal but slow, no pulsations at the radial or brachial artery of the sound side. The pulse on the paralyzed side was 35, soft, and regular. During all the time the man was under treatment there was no return of the pulse on the right side, although its muscular power and movements were quite good.

The cause of the absence of pulse is obscure. Had there been embolism, some visible change in the arm would have been experienced, but of this there were no signs, neither numbness, pain, tenderness, swelling, pallor, nor gangrene.—*The Australian Medical Journal*, June 15, 1885.

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SATURDAY, SEPTEMBER 5, 1885.

THE CONTINUOUS OR SPIRAL CATGUT SUTURE IN GYNECOLOGY.

THE use of the continuous catgut suture in gynecology, especially in plastic operations, has, probably, not received in this country the attention it deserves. The remarkable successes, especially in perineorrhaphy and in perineoplasty, that have been attained with it abroad by Schroeder, Bröse, Bar, Veit, and others, entitle the method to be properly understood and fairly tried.

Among important contributions to the literature of the subject may be mentioned one by BRÖSE, *Arch. für Gynäkol.*, 1883, one by BAR, *Archives de Tocologie*, February, 1885, and a discussion upon the subject by the Berlin Obstetric and Gynecological Society, in connection with a paper by Schroeder, the report appearing in the *Centralblatt für Gynäkologie*, July 18th. A study of the subject chiefly in connection with these contributions may be interesting and valuable to our readers.

According to Schroeder, Graefe was the first to use the continuous catgut suture in a recent rupture of the perineum, but it was not until Küster devised the method of preparing the catgut in oil of juniper that these sutures dissolved in nine days.

Of course, the catgut must be completely aseptic, and in its preparation one has to avoid such changes as will prevent its too rapidly dissolving in the tissues, or its failure to dissolve at all. The latter accident, which has occurred to us in some cases from using the MacEwen catgut, is very trying to the patient and mortifying to the operator.

According to Bröse Number 2 Lister's catgut is a suitable size, but it is not to be prepared according to Lister's method. Apparently the best method of preparing it is, first, soak it twelve hours in Van Swieten's liquor, and then place it in oil of juniper; no definite period is stated for its remaining in the oil of juniper, but probably a few hours will be sufficient; afterward it is preserved for use in absolute alcohol, and immediately before being used is washed in a 4 per cent. solution of carbolic acid.

Schroeder thinks it of very great importance not to irritate the denuded surfaces in a perineoplasty in the process of cleansing them, and he is now using for the latter purpose only distilled—that is, sterilized water. Veit irrigates these surfaces with a 1 to 10,000 sublimate solution. The method of denuding the surfaces is immaterial, only care must be taken not to carry the denudation too far on the sides lest undue tension results.

After the surfaces have been freshened, the operator, taking a needle threaded with catgut, begins stitching at the upper, the vaginal angle of the wound; after passing the suture from one to the other side he may either knot, or tie the catgut, and he then stitches from side to side, making a continuous or spiral suture along the vaginal surface of the rent to the skin surface of the perineum. He may then continue with the same needle, sewing up the perineum with deep and with superficial sutures; or for the present leaving that needle and catgut, take another threaded needle, and begin the stitching of the perineum at the posterior portion of the rent, and when he has completed this by a similar spiral suture, remove the needles, and tie the two pieces of catgut together. Or the same result may be accomplished if only a single catgut suture has been used, since in knotting or tying the first stitch, one may leave a projecting piece, and to it the final end is tied, the initial and terminal portions being thus united. In case the tear of the perineum be complete, it is well to use stitches in the rectum, and these are taken in the same way as the vaginal, but, of course, should be made before the latter. Bar states that some operators regard it as important to knot the suture from time to time, this prevents separation of parts if the catgut should happen to break. So, too, even in the vaginal stitching if the depth of the fissure be great, it is of essential importance to have a series of deep, and then one of superficial sutures.

One should have three or four needles threaded, so that, if the catgut breaks, there will be no delay in continuing the operation; these needles and catgut are kept in the carbolized water mentioned. Schroeder mentions among the advantages of the continuous catgut suture the rapidity with which the operation can be done, the absence of bleeding, and the accuracy with which the torn surfaces can be brought and kept in contact.

After the operation he has the patient's lower

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limbs fastened together, and keeps her in bed three weeks. To prevent distention of the rectum with fecal gases, he makes a subcutaneous division of the anal sphincter, and inserts a small tube in the rectum.

His results are of twenty-five operations upon twenty-four patients, all cured—one, as will be observed, had to have a second operation.

The results of colporrhaphy have also been much more favorable with the continuous catgut suture; posterior colporrhaphy gave more successes than anterior, the movements of the bladder interfering with perfect healing in the latter, a difficulty which he has endeavored to overcome by tamponing the vagina with iodoform cotton.

Odebrecht claims brilliant results from this suture, which he has adopted by the advice of Hofmeier; he has operated in three cases of rupture of the perineum, all of which succeeded; two of them being primary, the other a secondary operation. In one of his cases he used a rectal suture, introduced before the vaginal.

Veit's cases of perineal operation with catgut suture were seven, and six were successful. Beside, he had used this suture in thirty cases of prolapse operations, and two of vesico-vaginal fistula: the results were good.

Our own experience with the continuous catgut suture in gynecology has not been so great as to justify a conclusive opinion. The first difficulty we met, and which prevented success, was the unsuitable catgut used; some broke at almost every stitch, others split even after threading the needle and while taking the stitches, while still others refused to dissolve. Nevertheless, with catgut of suitable size and quality, and prepared as mentioned in this article, the results have been such as to encourage us to new trials.

INFECTIOUS PNEUMONIA.

MASSALONGO has described an epidemic of pneumonia in Tregnigo, a town in Italy of 2000 inhabitants, which presents certain points of interest. One hundred persons were attacked, of whom thirty died. No special atmospheric or telluric conditions preceded the outbreak, which was limited in extent, and spread from house to house, three, four, or five cases occurring in each one. The onset of the disease was rarely with a rigor, usually with malaise, headache, and indisposition for three or four days, rather resembling typhoid fever. The lung symptoms were usually marked, the expectoration rusty, but resolution was not often preceded by any critical phenomena, and took place very slowly, the patients remaining in a heavy, apathetic state. Delirium was frequent, and at times furious. Meningeal, articular, and renal complications were common, and hypertrophy of the spleen almost constant. During convalescence paralytic affections developed in three cases. After death it was observed that putrefaction supervened very rapidly. The characteristic microorganisms were found in the sputum. Many interesting facts are given in proof of the contagious nature of the disease.

There can be no doubt that this was an epidemic of an infectious disease with pulmonic lesions, but the mode of onset, course, and character of the symptoms seem very different, in many respects, from those of ordinary croupous pneumonia. Similar differences have been observed in other epidemics and the identity of the affections has been questioned by several observers.

A RECENT ARGUMENT FOR MATERNAL NURSING.

THE question of maternal nursing is an old one. It is probable that in the time of the Egyptian bondage, some women among the Israelites were wet nurses, else we cannot readily understand the disposition which Pharaoh's daughter at once made of the new-found infant Moses. Nevertheless the ancients were especially favorable to the mother's nursing her infant, because they believed that the latter sucked with the milk that nourished it, certain moral qualities. Among the bitter reproaches that the deserted Dido heaped upon the escaping Æneas was this, that he had nursed the breasts of Hyrcanian tigresses.

There is an interesting passage, a part of which illustrates this belief, found in Plutarch's sketch of Cato, the Censor: "As soon as he had a son born, though he had never such urgent business on his hands, unless it were some public matter, he would be by when his wife washed it and dressed it in swaddling clothes. For she herself suckled it, nay, she often, too, gave her breast to her servants' children, to produce, by their sucking the same milk, a kind of natural love in them to her son."

Nevertheless, all Roman women did not suckle their children, as is shown by the incident narrated by Livy concerning Gracchus, returning in triumph to Rome; he, seeing upon the walls his mother and his nurse, gave the latter a rich golden collar, to the former only a plain silver ring. So, too, Marcus Aurelius declared that she was only half a mother who gave birth to a child and did not suckle it. Upon some of the tombs of women dying in the time of Hadrian there have been found, as expressing the highest praise, these words: *Filios suos propriis uberibus educavit.*

Maternal nursing has been held so important that it has been urged, not only by physicians, philanthropists, political economists, and philosophers, but even presented as an imperative duty by some religious teachers. Two medical men very eminent in their day, Stahl and Van Helmont, were, however, exceptions to the general rule mentioned as to physi-

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cians; they maintained that the mother's milk was not sufficient, and advised giving with it pap. Alas, that the pap doctrine ruled so long, and is still held by some who have the charge of infants, for the murder of unnumbered innocents has been its necessary result.

It is believed that the number of mothers who do not nurse their children increases rather than diminishes. Of those who thus fail in the natural complement of pregnancy, many cannot; the reasons for this inability, or disability, are in part given in the late Dr. Clarke's work upon *Sex in Education*, a work that should be in the hands of all parents and teachers of girls. Many others will not; they are unwilling to make the sacrifice of convenience, comfort, rest, and time which nursing an infant involves. It is hardly necessary to say that this sacrifice is very great, and only made in many cases with much pain, exhaustion, and weariness, and often only possible by the power of maternal love and the strength of consecration to duty. In the eloquent and bitter reproaches which are attributed to the mother of St. Simeon Stylites, when she found her son after twenty-seven years absence, and he refused to see her, she uttered these words: "My son, why have you done this? I bore you in my womb, and you have wrung my soul with grief. I gave you milk from my breast, and you have filled my eyes with tears."

When such an obvious duty as maternal nursing is so frequently neglected, it is important to repeat old and to present new arguments in its favor. The *Bulletin Général de Thérapeutique*, of July 15, contains an interesting article by DR. SÉJOURNET upon the influence of natural nursing in the treatment of diseases of young infants, in which some important facts are presented in favor of natural rather than artificial food for infants. The author's purpose is to show that the milk of the mother, or of the wet nurse, is the best of medicines, the most precious and the most certain of therapeutic means, which can be used against the diseases of the first year. Such food is still more valuable in a hygienic than in a therapeutic view, and renders more service in prophylaxis than in cure.

Séjournet states that in seven cases of convulsions from gastro-intestinal irritation, five of the infants were fed by the bottle, and only two at the breast. Teething occurred in 47 infants under a year old without producing any irritation; 24 of these were nourished exclusively by their mothers' milk till they were six months old, after which other food was added, and the 23 others were also nursed by their mothers, but beside had soup and panada. Of 41 infants who suffered from gastro-intestinal irritation, while teething, 11 had the breast alone up to six months, while the other 30 had a mixed diet, viz., the mother's milk and starch food. 15 children between six months and a year old had convulsions, and 7 of these were bottle-fed, while the others, though having the breast, also ate freely. As the author observes, these figures are instructive, and plead in favor of natural nourishment as a preventive of the diseases so frequent in early infancy.

In sickness the milk from the bottle or the glass designed to replace the mother's milk, is less easily digested and assimilated by the organism than the living milk, and therefore it has not the same strengthening and reparative properties.

In the territory under his observation, there were, Séjournet states, 302 deaths in the course of four years in a population of 4000, the number of infants dying in their first year being 57. Of these infants, 33.3 per cent. were nourished by the breast, while 66.7 per cent. had either been weaned, or had been brought up from the first by the bottle: he says that this difference would be still more striking if the infants in the first class had all been kept exclusively on their mothers' milk—that is, the mortality would have been much less than 33.3 per cent. The author shows from further statistics the greatly less mortality of infants at the breast than that of infants at the bottle, in various diseases, such as measles and broncho-pulmonary maladies.

The lesson which he seeks to inculcate is the importance of mothers' nursing their infants, and he believes it should be urged on them by physicians.

The plain truth of the observations of Séjournet, confirming those of others, is that the mother who can, and who will not give to her infant the nourishment nature provides and designs for it, runs the risk of being guilty of infanticide. Pliny, who was not surpassed by Paley in his faith in final causes, said that a woman's breasts were placed upon the upper part of her chest so that she might fondle and caress her infant while it drew from them its food. Those who have studied the development of the infant mind assert that a most important stage in that development occurs during the first year of life. It is when the infant is happiest in satisfying its hunger with nature's food, that the best, the gentlest moral influences flow in upon it, and the fashioning of its spiritual nature in beauty and virtue begin. Finally, the physician urging natural nursing, pleads the lessened morbility and mortality of infants thus nourished, thereby adding this argument to that derived from natural instinct, to that of caressing, and maternal love, and to that of maternal duty in the proper unfolding of the infant mind.

PHOSPHIDE OF ZINC IN DYSMENORRHŒA AND STERILITY.

IN Matthews Duncan's lectures on *Sterility in Woman*, he places dysmenorrhœa in the list of the best demonstrated sources of, or attendants on, such

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conditions. But, even if we consider dysmenorrhœa the cause of the sterility, the question of the treatment of the menstrual difficulty does not in many cases admit of ready answer. Certainly there are cases of dysmenorrhœa which may be rapidly and satisfactorily treated by dilating the cervical canal, this dilatation being by double-bladed dilators, rather than by other means. But there remains a large number of cases that present no indication for this method of treatment, and which, of course, are not benefited if it be tried. Now, some of these may possibly be cured by the use of phosphide of zinc, as recommended by Decoux in a recent number of the *Gazette des Hôpitaux*. Having found this medicine useful in many cases of dysmenorrhœa and of amenorrhœa, DECOUX narrates a case where it twice proved effective in curing sterility associated with the former disorder. In addition to the success of this medicine in dysmenorrhœa, amenorrhœa, and sterility, he has found it remarkably useful in cases of hysteria, ataxia, anæmia, and neuralgia. He gives two granules of four milligrammes each, morning and evening. Only the crystallized preparation should be used, as the powder is inert. He states that its preparation is so difficult that, with a single exception, one scarcely find in commerce any but an impure product, which is partly or completely ineffective.

PUNISHMENT IN KIND.

AN ideal justice has proposed that all crimes should have such punishment as corresponds with their nature. Thus, he who commits murder has his life taken as a forfeit by law; he who steals, must restore the stolen money, and likewise be punished by a fine; he who inflicts bodily injury must have similar injury done himself. Human laws do in some cases, as in that of murder, recognize this principle. But the principle may be carried too far, as happened with the judge who was guided by it in his decision as to the punishment for causing a miscarriage: A careless hodman, ascending a ladder, let part of his load fall upon a pregnant woman who was passing on the pavement, and as a consequence of the injury she miscarried, when the judge to whom the matter was referred by the indignant husband, decided that the hodman must place the unfortunate woman in the condition she was at the time of the accident. Probably the decision was not enforced, and in this respect there was a miscarriage of justice.

But occasionally punishment in kind is very justly inflicted without the intervention of law. A very striking illustration in point is given in one of the recently published lectures by Martineau, *sur la Blenorrhagia chez la Femme*. The story is this: A Parisian husband gave his wife gonorrhœa, and she *kept it for him* during more than two years! He was cured of the disease, but at more or less frequent intervals after coition with her, had fresh attacks, although she was supposed to have also been cured. Martineau, upon examining the lady, found there were two or three urethral and periurethral follicles projecting and purulent, that the vulval follicles near the opening of the excretory duct of the right vulvovaginal gland were also inflamed, as well as the gland itself, and that there was a sero-purulent urethral discharge.

No one can question the justice of the punishment for the husband's original sin. Unfortunately the moral of the story is in part spoiled by the statement that this man had intercourse with other women without contracting gonorrhœa, during the time his wife was so sure to give it to him under similar circumstances.

REVIEWS.

ON SCLEROSIS OF THE SPINAL CORD, INCLUDING LOCOMOTOR ATAXIA, ETC. By JULIUS ALTHAUS, M.D., M.R.C.P. Lond. New York: G. P. Putnam's Sons, 1885.

IN no department of medicine has such satisfactory progress been made of late years as in the diseases of the cord, and the number of excellent manuals which have been issued recently bears testimony to the general interest which the profession now takes in the subject. Dr. Althaus, who is a well-known London specialist of large experience, has chosen for consideration in this volume those diseases of the cord accompanied by sclerosis or chronic degeneration, and which include in reality the majority of cases of spinal disease commonly met with. Locomotor ataxia occupies three-fourths of the work, and is most exhaustively discussed in all its relations. Indeed, this part forms a complete monograph on the subject. The author is a strong supporter of the theory of the syphilitic origin of tabes, and in over 86 per cent. of his cases a specific history could be obtained. Certainly, so far as statistics go, the conclusion would seem to be warranted, and yet the dissimilarity of the lesions and the uselessness of special treatment outweigh in the minds of many authorities, such as Leyden and Westphal, any number of figures which may be "made to prove anything." Nearly 150 pages are devoted to the symptomatology of the disease, and many illustrative cases are given. In the treatment of tabes, Dr. Althaus, as is well known, holds much more hopeful views than most writers on the subject. Believing so strongly in the etiological relation of syphilis to this truly dreadful disease, he pleads earnestly with the general practitioner to be more alert in the prevention of it by thoroughly treating all cases of primary syphilis. Where there is a suspicion of this disease, a prolonged course of mercury and iodide of potassium is advised, and in the early pre-ataxic stage the progress of the disease appears to have been arrested. In the second and third stages not much can be expected from them, and the author then prefers ergot and nitrate of silver. Opinions differ much as to the value of the latter salt, but the author speaks in most favorable terms of

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its use, particularly in allaying the pains. Discoloration is not produced until 450 grains have been taken (Krahmer), so that the drug should be stopped when the amount reaches about 300 grains.

We are glad to see that Dr. Althaus uses the term "Westphal's symptom," in speaking of the knee-jerk. The name of this able and modest[1] investigator should certainly be connected with the discovery of a symptom of such great value in diagnosis.

The chapters on spastic paralysis, Friedreich's disease, and insular sclerosis are equally interesting and full of valuable information.

SOCIETY PROCEEDINGS.

THE AMERICAN DERMATOLOGICAL ASSOCIATION.

Ninth Annual Meeting, held at the Indian Harbor Hotel, Greenwich, Conn., August 26, 27, and 28, 1885.

WEDNESDAY, AUGUST 26TH.

MORNING SESSION.

THE meeting was called to order at 10 o'clock by THE PRESIDENT, DR. W. A. HARDAWAY, of St. Louis.

The first paper was read by DR. J. E. GRAHAM, of Toronto, Canada. It was entitled

A CASE OF TUBERCULO-ULCERATIVE SYPHILIDE OF HEREDITARY ORIGIN.

The patient was a girl twenty years of age. On the right arm, from the wrist to the elbow, there was very little healthy skin, there being little but cicatricial tissue. The skin of the forearm presented elevations and depressions and in places was covered with thin scales. The hand was not involved and the affection did not extend deeper than the subcutaneous areolar tissue. For three or four inches above the elbow, the arm was atrophied and covered with cicatricial tissue. At the upper border of the cicatricial tissue, was an ulcer three-fourths of an inch wide, which encircled the arm. Above this there was sound tissue, no nodules were present. The left clavicle presented, about its middle, a swelling and ulceration about the size of a silver dollar; the result of a blow. There was no copper-colored appearance. The heart and lungs were healthy and the urine normal. Investigation of the family history showed that the mother was apparently healthy, and the patient's sisters, three in number, all younger than herself, were healthy. The father died of pneumonia when the patient was eighteen months old; it was subsequently learned (after the patient had been under treatment for some time) that he had also had syphilitic ulceration of the throat. The treatment consisted in the local application of a mild mercural ointment and the internal use of corrosive sublimate and iodide of potassium. The condition steadily improved and in the course of six or eight weeks the ulceration had healed. Since that time the patient had not been under observation.

The speaker referred to the difficulties of diagnosis in this case, as there was, at first, a complete absence of specific history, the facts in regard to the father not being learned for some time after the case had been under treatment, and as there had been no previous evidence of hereditary syphilis; but taking all the facts into consideration, he thought that there could be no doubt as to the correctness of his diagnosis.

Photographs of the case were exhibited.

DR. R. W. TAYLOR, of New York, said that there are a number of important points brought up by this paper. First as regards the family history. The mother was healthy, but the father had syphilis. It is now generally conceded that syphilis can be communicated to the child without infection of the mother, and he believed that he was the first in this country to call attention to this fact. He has seen this a number of times and it has been in cases in which a most careful and thorough examination of the mother had been made and the observations continued over a series of years. Dr. Graham stated that he could obtain no history of early manifestations of hereditary syphilis. This is not uncommon, but Dr. Taylor believes that there is usually some indication of specific taint, but it may be so slight as not to excite notice or its exact import is not recognized. These may pass away and in the course of six months or a year, the ulcerative lesions appear, although it is not uncommon for the child to go to the age of from six to eighteen years without exhibiting this condition. He has reported the case of a girl whose mother had syphilis who had exhibited no signs of hereditary disease during her early years. When about fifteen years of age, she had, following a cold bath, the development of ulcerative gummatous tumors scattered over the entire body. A factor which has some importance in the time of appearance of these lesions is traumatism, as he has frequently noticed such instances.

DR. C. HEITZMANN, of New York, said that every one has seen cases similar to the one reported. He has seen such cases in which he was unable to determine at first sight the nature of the affection. The diagnosis lies between syphilis and scrofula. Lately a man aged twenty came to him with a condition similar to that described by Dr. Graham, affecting the right groin. The ulcer was ten inches in diameter. He was unable at first to make the diagnosis.

DR. GREENOUGH, of Boston, referred to the practical point to which Dr. Taylor has called attention, and that is the possibility of the father's infecting his progeny, without the mother showing any signs of syphilis. Within the past two months, he had seen a woman who has lost three children in succession from hereditary syphilis, yet she is strong and apparently perfectly healthy and has never shown any signs of the disease. This woman has been under competent medical observation for six or seven years.

DR. J. C. WHITE, of Boston, thought that in many of these cases it is impossible to make the diagnosis at once.

DR. L. A. DUHRING, of Philadelphia, said that there are certain cases in which it is almost impossible to express a positive diagnosis at first. The result of treatment in causing a rapid cure in the case described would certainly incline him to the opinion that this was a case of syphilitic disease. He has, however, never seen a case recover so quickly.

[1] We say "modest," for this characteristic struck the writer very forcibly when attending Westphal's Lectures on Diseases of the Spinal Cord. In an able discussion on the value of the knee-jerk, not a word was said of his own connection with the important discovery.

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DR. J. NEVINS HYDE, of Chicago, said that, as regards the remarks of Dr. Taylor, he would say that he has seen cases which have convinced him that, whilst it is not the rule, still occasionally syphilitic children are born where, so far as observation can be made, no evidence of syphilis in the mother can be detected. As far as the general health is concerned, he cannot say that he has seen vigorous, healthy women the mothers of syphilitic children. Such mothers are usually pallid and weak, although there may be no symptoms which can be ascribed to syphilis. He sees inherited syphilis in infants constantly, but he has never seen inherited syphilis manifest itself in advanced years, or, if he has, he has failed to make the proper diagnosis. Tardy inherited syphilis he knows nothing about. The more he sees of syphilis, the more he is satisfied that in its origin heredity does not amount to very much. The accidental cases of syphilis are very common. He has seen the initial lesion of syphilis on the head of a penis where it was without doubt due to inoculation from the finger of the surgeon in catheterization. He has no doubt that the case described was one of syphilitic trouble, and, as Dr. Duhring has said, the result of treatment unquestionably points in that direction. There are no cases which yield so readily as old cases of untreated syphilis. As to pronouncing it a case of hereditary syphilis, his experience would not permit him to do so.

DR. W. A. HARDAWAY, of St. Louis, thought it unwise to base our diagnosis on the results of internal treatment. Because a case gets well under antisyphilitic treatment, is not proof that the affection is syphilitic in its nature. Local treatment alone will often produce that result.

DR. R. W. TAYLOR, of New York, remarked that Dr. Hyde had made the statement that these women apparently unsyphilitic, who have borne syphilitic children have, in his experience, been pallid and weak. He entirely disagrees with him on this point. More frequently he finds such persons in robust health.

The next paper was entitled

CLINICAL NOTES ON PSORIASIS,

by DR. F. B. GREENOUGH, of Boston.

The paper was ounded on the records of 394 cases of psoriasis, occurring in an observation embracing about 15,000 cases of skin disease, representing about two and one-half per cent.; 206 of these cases were males and 188 females. The author's statistics were presented, showing the age at which the attack was first observed. A large proportion was first attacked with the disease between the ages of ten and forty years; one-seventh before the age of ten years; this latter observation is not in accordance with the literature of the disease. In but ninety-seven cases was the speaker able to get reliable evidence in regard to the family history; in thirty-one of these psoriasis had existed in a near relative, but in the remaining sixty-six no other member of the family, near or remote, had had the disease.

As regards locality affected, where there is much development it is almost constantly found about the elbow and knees, and more frequently on the extensor surfaces than on the flexors. A class of cases is met with in which the affection shows itself only on the skin of the leg below the knee.

Well-marked cases are readily recognized, but in some cases there is considerable difficulty in making the diagnosis. It is most frequently confounded with some form of eruption resulting from constitutional syphilis. When psoriasis affects the scalp, its appearance is often similar to that of secondary syphilis. In psoriasis, however, the patch consists simply of epithelial cells, usually on a slightly hyperæmic base; in syphilitic eruption, the crust will contain other elements than epithelial cells, and on removal of the crust spots of moisture will be detected. A characteristic symptom of psoriasis of the scalp is a band of hyperæmia, about three-fourths of an inch wide, extending around the forehead, contiguous to the hair; this is a point of value in the diagnosis between eczema capitis and psoriasis. In the former affection, this band is wanting. In eczema, also, evidence of dried serum or pus will be found; eczema is apt to extend to the ears. Psoriasis is not accompanied with enlargement of the post-cervical glands, as is eczema. The diagnosis from favus is made by the age of the patient, a moist surface beneath the crust, the evidences of destruction of the hair follicles, and in favus the microscopical examination.

The speaker had never been able to satisfy himself that psoriasis of the scalp ever caused permanent loss of the hair.

On the general integument, syphilide are most apt to resemble psoriasis. The regions on which the eruptions appear are important. The syphilides are apt to affect the flexor surfaces, while psoriasis affects more commonly the extensor aspects. Psoriasis begins as a minute point of hyperæmia, which may last for several days. In macular syphilide a crop of macules appears within twenty-four or forty-eight hours, and then the eruption begins to fade. There is in syphilis a decided pigmentary change. In squamous syphilis, the epithelial scales differ from those of psoriasis.

The amount of pruritus complained of in psoriasis varies, but it is rarely a prominent symptom, although in exceptional cases it may be severe. He has never seen any eruption on the palms or soles resembling psoriasis, with the exception of eczema, which was not syphilitic.

In regard to treatment, some cases do well, while others do not. There is no specific; what will benefit one case may make another worse. In his experience, tarry preparations, especially the oil of cade, have been most efficacious. Great comfort may be afforded by the use of emollients, of which cod-liver oil is one of the best. Cod-liver oil and oil of cade (equal parts) is a common prescription. Chrysarobin is a powerful remedy, but has the disadvantage of soiling the clothing; moreover, on the face and scalp it is apt to produce violent dermatitis. The internal administration of arsenic in some cases is of benefit. Even after apparent recovery, there is great danger of relapse.

DR. HYDE asked whether any of these cases had the eruption on the palms of the hands.

DR. GREENOUGH replied that in none of the cases mentioned was that observed.

DR. HYDE thought that it would be well to drop the

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idea that psoriasis may occur on the palms of the hands exclusively. In all the cases in which such appeared to be the case, he has been able to make another diagnosis. He has observed one or two cases of psoriasis of the head in individuals bald on the top, and in these instances the eruption confined itself to the portions covered with hair.

DR. L. A. DUHRING remarked that the reader of the paper, in referring to the diagnosis, did not allude to the difficulty sometimes experienced in diagnosticating seborrhœa capitis from psoriasis. He has found considerable trouble in the diagnosis, particularly in young girls. In these cases the eruption was confined to the scalp.

DR. A. R. ROBINSON, of New York, said, in regard to the diagnosis of favus and psoriasis, that there is usually no difficulty. He did not agree with the author in regard to one of his points of diagnosis. In the early stage of favus you do not find moisture when the crust is removed; there is a shiny appearance, and, in advanced stages, ulceration is present. He agreed with the speaker that psoriasis always occurs in small spots of hyperæmia at first, not covered with scales. He considered it primarily an affection of the rete. While it is true that psoriasis often disappears without producing pigmentation, as stated by the author, yet there may be discoloration found on the lower extremities, particularly where there is a varicose condition of the veins. In some cases where there are only a few patches of psoriasis limited to the lower extremities, it is often difficult to make the diagnosis; unless there is involvement of other parts of the body, or you have the history, it is often impossible to come to a conclusion. There are other cases, of acute psoriasis, which closely resemble acute eczema. In reference to the palms of the hands, whilst we do not see cases of psoriasis limited to this situation, yet he is sure that cases have been shown in which the palms of the hands have been affected in connection with other portions of the body.

DR. J. C. WHITE, of Boston, concurred with Dr. Duhring in regard to the difficulty of diagnosticating between psoriasis of the scalp and seborrhœa. In some cases the diagnosis cannot be made for months. In diagnosis, he does not lay much stress on the location of the eruption; when the eruption is sparse, it is more apt to affect the extensor surfaces. He should like to call attention to one termination which he has seen in three cases, as he has elsewhere given in detail, and that is a degeneration into epithelioma.

DR. R. B. MORISON, of Baltimore, said that he saw a great many cases of psoriasis in the white; but, although in dispensaries he has had many negroes under treatment, he can only recall one or two cases of psoriasis in persons of that race; in such cases there is a loss of pigment.

DR. G. H. FOX, of New York, said that too much stress is laid on the general rule that psoriasis occurs most frequently on the extensor surfaces, the knees, and the elbows. It is a notable fact that in general psoriasis the vicinity of the knee and elbow escapes. Many cases of psoriasis occur in weakly subjects; while, on the other hand, many cases appear in robust persons. In every individual case, the better the patient's health, the less likely is he to suffer from a recurrence of the affection. He has been very successful in the treatment of psoriasis, and in its management he adopts the teaching of the late Tilbury Fox. He laid stress on the point that in psoriasis, as in other inflammatory affections of the skin, and also in lupus, the first thing to do is to lessen the congestion of the skin. He does not do this by adopting the alkaline treatment, but by restricting the diet. He is somewhat indifferent as to restricting the starchy and saccharine elements of the food, but cuts off the meat, and orders a diet of fruits and vegetables in the summer, and in the winter gives a carefully restricted diet. Tea, coffee, tobacco, and stimulants of all kinds are to be cut off. By so doing, more will be accomplished than is obtained by using arsenic and local applications at the start.

In regard to local remedies, he never uses tar in the treatment of psoriasis. With the application of chrysarobin made at the proper time, there is no necessity for the use of tar. He has seen many cases in which this drug did no good, but this was because the application was made when the patches of psoriasis were in a congested condition. If the acute congestion is at first lessened, chrysarobin will produce beneficial results.

DR. C. HEITZMANN, of New York, said that one of the most important points, after making the diagnosis, is to decide as to the acuteness or chronicity of the affection. If it is acute, local applications are to be avoided; if the case is chronic, chrysarobin may be used with advantage, at least temporarily. It is not a cure. He agreed with Dr. Fox, that restriction of the diet is important for the purpose of lessening the congestion. Tar cannot be dispensed with. Chrysarobin removes the disease for a time, but in a few months it returns. There is nothing like tar to prevent the recurrence. No mention has been made of pyrogallic acid, which does good in some cases. There are, however, some cases which cannot be treated successfully with any remedies, the disease steadily growing worse.

DR. W. A. HARDAWAY believed that in psoriasis we have a disease situated in the skin itself. It is frequently hereditary. The same sort of skin may be transmitted just as a certain color of the hair or of eye may be transmitted, and then any exciting cause may develop the psoriasis. Traumatism is frequently the exciting cause. He has seen psoriasis follow eczema. It is not unlikely that seborrhœa of the scalp may lead to the development of psoriasis. Internal causes may produce it. He has seen a case in which, apparently, the excessive use of oatmeal produced typical psoriasis.

In the treatment of psoriasis, it is important to regulate the diet. He cuts off meats and aids digestion in all possible ways. As a local application, he believes that chrysarobin with salicylic acid is very useful in chronic cases. Arsenic is useful on account of its action on the skin. He has employed chrysarobin in liquor gutta-percha, and in gelatine paste. This treatment may be followed up by the application of sulphur ointment. In psoriasis of the scalp, sulphur is quite an efficient remedy.

DR. GREENOUGH said that he did not intend to cover the entire ground of psoriasis in his paper. The omission of a consideration of seborrhœa, he admitted, was an oversight. In regard to pigmentation, he referred especially to those cases of psoriasis of the trunk which were most apt to be confounded with syphilides.

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DR. J. C. WHITE, of Boston, reported two

CASES OF ANGIOMA PIGMENTOSUM ET ATROPHICUM.

The first patient was a young man 17 years old, and a Russian Pole by birth. Freckles appeared on his face before he was two years of age. These increased in number until the age of six. When the telangiectasic condition first appeared was not noted. When seen, the patient was well developed and apparently in good health. He has, however, grown slowly, and is now no larger than a boy of twelve. The hair of the head is abundant and intensely black. The eyes are also black.

Present condition. Melanosis: The forehead and lower portion of the face are of a dark-brown color, and, on close inspection, small spots of a darker color are seen. The whole trunk is as dark as the skin of a dark Spaniard. The scrotum is very black, and the penis and glans present dark spots. The arms and hands are thickly spotted. The legs are also affected. On the right thigh there is one spot of dark color, covered with rather long hair. The mucous membrane of the mouth and pharynx is free from melanosis.

The atrophied condition: On the right side of the face, occupying one-half the surface, is a sharply defined area of white cicatricial looking skin. Similar areas are seen on the other cheek, forehead, and about the mouth. A few white spots are seen on other portions of the body. The sensibility of the affected areas is decidedly lessened.

Telangiectasis: Over parts of the face there are bright red spots, varying in size from a pinhead to a pea. They are most noticeable in the atrophied portions. Within the eyelids there are two angiomatous new growths. Several vascular twigs are also seen on the face. A few red points are found on the femoral surface.

The second case is a brother of Case I., aged three years, born in New York. When eighteen months old, little colored freckles were noticed on the face. Since then the condition has been increasing. His hair is dark brown and eyes are black. The face is covered with numerous dark brown freckles. The spots are so close together that at a little distance the skin has a uniform color; in some places the spots are slightly elevated; the backs of the hands are covered with dark brown spots; elsewhere the skin is clear. There are no leucodermic spots, and no angiomatous condition.

From a study of these cases, Dr. White concludes that in the beginning the development of these spots cannot be distinguished from ordinary freckles. Gradually the spots multiply until they involve a considerable portion of the skin. It is probable that several years may elapse without other manifestations of the disease. The telangiectasic condition is probably secondary. In the first case it is most developed in the atrophic portion. It is probable that in this case there will be hypertrophy of the epithelium and final transformation into epithelioma. This has been the result in the thirty-three cases which have been reported.

DR. TAYLOR thought that there was a direct relation between the red spots and the macules. The history of the cases which he has seen have been first a rash, then the red spots, and then the macules. In one case the telangiectasis followed exposure to heat.

DR. WHITE recognized a great difference in this disease as described by various writers, but he insisted on the correctness of his own observations. The younger child has exhibited none of the precedent hyperæmia which has been noted in some cases. This patient has been observed after exertion, and when exposed to intense heat, but there has been no hyperæmia. The same is true of the first case as far as known. In the second case, which is still developing, there is no enlargement of the vessels.

EVENING SESSION.

DR. J. NEVINS HYDE, of Chicago, read a paper on

THE RELATIONS OF LUPUS VULGARIS TO TUBERCULOSIS.

He began with a detailed statement of all the cases of lupus reported to the Statistical Committee of the American Dermatological Association during the last seven years, and compared the frequency of the disease in this country with that reported in the Vienna hospitals. He then gave details of twenty consecutive cases observed by him in Chicago.

The clinical deductions from these records were then added, showing, according to the author, that there was a remarkable absence of pulmonary tuberculosis, scrofula, and allied diseases in the family histories of the twenty cases reported.

The teachings of the two schools represented in the past by prominent German and French authors were then referred to, and finally the later investigations demonstrating that lupus vulgaris was the result of bacillus infection, not to be differentiated in external appearance of the parasite from the bacillus tuberculosis.

The following clinical facts were then cited in support of the later teaching of this subject as bearing on the vital point in the author's argument, viz., that lupus vulgaris is not the result, as has long been taught, of tuberculosis or other systemic diathesis, but is the product of a local infection by bacilli, entirely unassociated with any constitutional evidence of diathesis or predisposition.

1. The unimpeachable character of the family record in by far the larger number of cases of lupus vulgaris.

2. The fact that the disease is in its inception a disorder of the period of childhood, when, for the most part, the habits of the child are favorable to infection.

3. The several sites of predilection are those most favorable to such infection.

4. The failure of the disease to spread by inheritance.

5. The remarkable tendency of lupus vulgaris to cutaneous limitation.

DR. JAMES C. WHITE, of Boston, then read a paper on

THE TREATMENT OF LUPUS BY PARASITICIDES.

He reviewed briefly the evidence in favor of the parasitic nature of the affection. All previous plans of treatment which had proven most successful were those which would have the effect of destroying the parasite which might be present.

A number of cases were then reported in which the local use of corrosive sublimate in the strength of one to two grains to the ounce of water or unguent had been used with beneficial results. The ointment was especially

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recommended. It had been rarely necessary to prolong treatment over two months. As regards the permanency of the cure, the author was unable to speak, as the experiments had been continued for only eighteen months.

DR. SHERWELL, of Brooklyn, expressed his profound disbelief in the parasitic nature of the disease, and he did not know that the theories of Koch have been entirely proved. It seems to him that lupus and scrofula represent forms of syphilitic hereditary influence.

DR. WIGGLESWORTH, of Boston, suggested that the oleate of mercury might be more efficient than ointments, on account of its penetrating power.

DR. HYDE said that at the last meeting of the Association, Dr. Taylor suggested the use of a solution of corrosive sublimate in tincture of benzoin for ringworm. He had used this in cases of lupus and in cases of infecting chancre. It makes an excellent application. In regard to the syphilitic origin of this affection (lupus), he said that he recognized the fact that inherited syphilis is inherited syphilis and has no relation to this or other diseases. He felt that he was standing on good ground when he said that scrofula and lupus have no relationship whatever with syphilis.

The next paper was by DR. W. A. HARDAWAY, of St. Louis, and was on

THE TREATMENT OF PORT-WINE MARK BY ELECTROLYSIS.

The author stated that in the treatment of this affection, the object is to excite sufficient inflammation to cause occlusion of the vessels. Electrolysis seems to be the most convenient way of doing this. At first the speaker had used a bundle of needles, but after the use of such, the reaction is too violent, and there is, moreover, a great tendency to keloidal development, so that he now employed only the single needle. It is important to allow a period of some weeks to elapse between the operations. The histories of three cases were given in which this method had been employed, in two of which with marked success, in the third the result was unsatisfactory.

DR. WHITE used this method in one case, and had produced considerable improvement.

DR. WIGGLESWORTH had seen good results in telangiectases from cutting the vessels in two places and using a preparation of iron, thus closing up the dilated vessels. The worst case of telangiectasis that he had ever seen occurred in a middle-aged lady whose face, in consequence of the disease, was bright red in color. He treated her for three or four years with a marvellously good result.

DR. FOX said that we all admit that spider cancers and telangiectasis are amenable to treatment of different kinds, but when we come to port-wine marks, we find a difference. He thought that better results can be obtained by electrolysis than by other measures, but it does not remove the trouble entirely. He has used the treatment with puncture and carbolic acid with fair results. In one or two cases he has passed the electrolytic needle deeply into the tissues, endeavoring to strike the artery of supply, and sometimes has produced a decided effect.

DR. DENSLOW, of St. Paul, recently saw a case of port-wine mark on the labia majora of an infant. This had ulcerated when the child was brought to him. As a temporary measure, he applied the liquor gutta-percha. In two days, without other treatment, the whole mark sloughed out, leaving nothing but a simple ulcer, which completely healed in the course of three weeks.

DR. WHITE said that the course in the case mentioned by Dr. Denslow is not an uncommon one in infants.

DR. HARDAWAY held that the advantage of the electrolysis is that it is manageable. A practical point might be referred to, and that is, if after the operation the part be frequently mopped with hot water, the inflammatory disturbance will be greatly lessened.

DR. S. SHERWELL, of Brooklyn, made some

REMARKS ON A MOOTED POINT IN THE ETIOLOGY OF PSORIASIS.

He had been struck by the great diversity of opinion in regard to the general health of those affected with psoriasis, and, in order to arrive at something like a consensus of opinion on the subject, he had referred to the writings of most of the authorities in dermatological matters. Brief extracts from various writers were then given. The evidence thus obtained strengthened the Doctor's opinion that patients with psoriasis are generally in good health. He thought that the theory of Piffard, who believes that the rheumatic diathesis is a great exciting cause of psoriasis, was the most rational theory that had been advanced.

THURSDAY, AUGUST 27TH.

MORNING SESSION.

At the Business Meeting, the following were elected

OFFICERS FOR THE ENSUING YEAR:

President.—Dr. E. Wigglesworth, of Boston.

Vice-Presidents.—Dr. I. E. Atkinson, of Baltimore, and Dr. A. R. Robinson, of New York.

Secretary.—Dr. G. H. Tilden, of Boston.

Treasurer.—Dr. H. W. Stelwagon, of Philadelphia.

Dr. F. B. Bronson, of New York, was elected to membership.

The next meeting will be held, beginning on the last Wednesday of August, 1886, at Indian Harbor Hotel, Greenwich, Conn.

The Committee on Statistics made a brief report.

DR. G. H. FOX gave a brief description of

TWO CASES OF DYSIDROSIS.

The first case, for want of a better term, he classed under this heading. The patient was twenty-nine years of age, and had always perspired freely. Four years ago the eruption began on the palms of the hand, and had persisted. The soles of the feet had also been affected at one time. The skin of the hands was decidedly thick and had a dark hue, and was dotted with numerous elevations of epidermis, averaging in size that of a hemp-seed. The patient had never seen any moisture in connection with the disease. There had been no itching. The skin never peeled off. Puncture with a needle revealed no serum or fluid of any kind.

The second case was that of a woman aged 46, a cook, whose general health was good. The present trouble began five years ago. The eruption is on the face and consists of numerous large and small vesicles containing clear fluid.

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DR. ROBINSON said that these latter cases are not infrequent and may persist for months and years. They consist in destruction of the sweat ducts in the chorion. They never become inflammatory, although sometimes they may be surrounded by a little areola as the result of pressure. The symptoms which they present do not at all correspond to those of dysidrosis as described by Hutchinson and Tilbury Fox, as belonging to dysidrosis of the palms.

DR. STELWAGON said that, judging from his own experience of the past several years, the affection, as described in Dr. Fox's second case, is not at all uncommon, observed especially in washerwomen and cooks. At first he was unable to classify the disease, resembling as it does dysidrosis, but has lately looked upon the affection as sudamen. The only description of the disease that he has been able to find occurs under the head of that disease in Dr. Robinson's treatise on skin diseases.

DR. A. R. ROBINSON, of New York, presented a paper on

MYCOLOGICAL STUDIES IN TINEA FAVOSA AND TINEA TRICOPHYTINA.

The epidermis of different individuals, he said, differs in susceptibility to these parasites. Children are more apt to suffer with tinea tricophytina and favus, while adults more frequently presented tinea versicolor. All children are not equally susceptible. In many cases of parasitic disease there is impaired vitality previous to the development of the affection.

He then gave an account of his investigations to determine the exact anatomical seat of the parasitic diseases in question and to determine the changes which they produced in surrounding tissues. The conclusion was that in favus the rete is not affected until the later stages, when as a result of pressure the rete and corium are atrophied or ulcerated. The parasite confines itself more particularly to the corneous layer. The parasite of tinea tricophytina in some cases passes down into the rete, while in others it does not.

A number of sections were shown under the microscope which illustrated the points brought out in the paper.

DR. WHITE asked what evidence there was that in ringworm and favus a decreased vitality is necessary.

DR. ROBINSON thought that it was found in the fact that it is exceedingly difficult to cure these affections occurring in broken-down subjects, until the general health is improved.

DR. WHITE asked if there is any evidence that the fungus attaches itself more readily, or runs a more rapid course in unhealthy children?

DR. ROBINSON replied that practical experience shows that it is well known that in hospitals the disease will spread more rapidly than in private families.

DR. WHITE could not agree with the speaker in the importance of depressed general health as a factor in the production of these diseases. He has never seen any necessity for internal treatment in these cases. Where the disease affects a superficial portion of the body it is readily removed, but where it involves a portion covered with hair it is difficult to cure. Although he thinks the improvement of the general condition has nothing to do with the cure of the parasitic trouble, yet it is of service in the restoration of the parts to their natural condition after the parasite has been destroyed.

DR. PIFFARD, of New York, agreed with Dr. Robinson that there is a relation between the condition of the general system and the rapidity of development and rapidity of cure.

DR. DUHRING has always held the view that a peculiar condition of the epidermis was necessary for the growth of the fungus. The majority of cases of obstinate ringworm that he has seen, have been in individuals in poor health, but there are exceptions to this rule. What this peculiar condition of the skin is, has not been determined.

DR. HEITZMANN said that as regards the constitution of the patient, he must agree with Dr. White. He had seen in the Vienna clinic strong healthy persons covered from head to foot with tinea.

DR. DENSLOW had recently seen a large number of cases of ringworm of the head and beard, but all the patients were well-developed muscular subjects. These were cured without internal treatment.

DR. HEITZMANN, of New York, then read a paper on

THE STRUCTURE OF THE DERMA AND THE DEVELOPMENT OF ELASTIC TISSUE IN IT.

He based upon his orignal investigation a claim that the bundles which compose the derma by freely interlacing, are not made up of fibres, but of dense, delicate spindles, representing the basis-substance. Between the spindles is a chemically different cement-substance. The interstices between the bundles are occupied by protoplasm, everywhere connected and nowhere in the shape of the so-called connective-tissue cells. According to the general spindle-shaped configuration of the bundles the protoplasmic cords produce a comparatively coarse reticulum, freely supplied with nuclei. In connection with the protoplasm there is a delicate reticulum of living matter, piercing both the basis- and the cement-substance. The non-living portions are very minute, while the main bulk of the derma has all properties of life, as shown by feeding kids with milk and grass, which latter very rapidly alters the density of the derma. In inflammation not only the protoplasm participates in an active manner by new formation of inflammatory corpuscles, but the whole basis-substance breaks apart into such corpuscles. With advancing age the protoplasm becomes less, being transformed into basis-substance, the bulk of which is augmented. At the meeting-edges of the bundles the protoplasm is transformed into elastic substance, the third variety of basis-substance in the derma. Still the branching elastic ledges remain, traversed by delicate offshoots of living matter. In this view the best microscopist of Europe, Prof. Stricker, of Vienna, coincides with the speaker.

DR. W. A. HARDAWAY described

A CASE OF MULTIPLE MYOMATA OF THE SKIN, ACCOMPANIED BY SEVERE PAIN.

A. B., age, 36, married, with healthy children and good family history. Never had syphilis. Present trouble began a year ago. Changes in weather produced pains in the parts which have since become affected; to relieve these firm pressure was made with the hand. Later the lesions presented themselves.

Present condition: A strong hearty man, a peddler

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by occupation. The pains still persist, recurring at intervals of one night to a week. Each attack lasts two or three minutes and does not return the same night.

The growth is situated on the right side of the back in the middorsal region, and the course of the growths is obliquely outwards. There are one or two elevations on the left side, three of the growths are as large as peas, others are small. The epidermis is not abnormal. On passing the hand over these growths there is no hyperæsthesia, but on deep pressure in the neighborhood of the larger masses the patient sinks moaning to the floor. One of the larger growths was removed and microscopical examination showed it to be composed of smooth muscular fibre.

From a clinical standpoint, the case bears a close relation to the cases of neuroma which have been reported. The speaker concluded that certain new growths in the skin accompanied with severe pain may be widely different in histological structure. We are not justified in assuming, that a painful tumor of the skin is a neuroma or fibro-neuroma simply from its clinical history, without a microscopical examination.

DR. DUHRING said that it would be difficult to differentiate from the local appearances, the case described by Dr. Hardaway and that which he reported some years ago. It is not possible from a clinical standpoint, as has been said, to differentiate these growths; we are obliged to rely on the microscope. There is one point of difference in his case and that just described: no pain was produced by superficial manipulations, while in his case the pain was intense on the slightest touch, while firm pressure decreased the pain.

DR. R. B. MORISON, of Baltimore, reported

AN UNUSUAL CASE OF TYLOSIS OF THE HANDS.

The patient was a negro, aged 32, muscular, well developed, and apparently healthy. By occupation he was a fireman of a steamer, and had occupied this position for ten years, shovelling coal, with the right hand grasping the upper portion of the shovel, and the left hand sliding up and down the handle. Two fingers of the left hand are worn off to the second joint, while the other two are going in the same way, the nails having disappeared. On several occasions he has drawn pieces of bone from the fingers. There has been no pain at all connected with the affection. On this hand there are some large blisters, underneath which there are red granulating surfaces, which are painless. There is no history nor evidence of syphilis. Specific treatment has been used without effect. The man obstinately refuses to give up his work so that little could be done in the way of treatment.

DR. WHITE said that from the unusual result, it would seem that there must have been some precedent change causing atrophy.

DR. TILDEN remarked that there is a good deal of resemblance between this case and the cases of perforating ulcer of the foot, and this would lead us to suspect a nervous element.

DR. WIGGLESWORTH said that this resembles in some respects anæsthetic leprosy, but it differs in other points.

DR. MORISON was led to consider it a strictly local affection, from the fact that the hand which was most exposed to rubbing and to the heat of the furnace, was the one most affected.

DR. DUHRING should be inclined to consider the callosities a secondary condition. The occupation probably had something to do with the aggravation of the disease. But if the occupation had been different, there would probably have been a similar change. He should regard it as dependent on some deep change in connection with the nerves, similar to that occurring in perforating ulcer of the foot.

DR. MORISON said that it was an affection of the nerve in the first place he can hardly admit. It may be that the continued congestion of the skin, dependent on his occupation, produced changes in the nerves or other part, which culminated in this affection. In referring to the literature of the subject, he found similar cases attributed to mechanical irritation.

NEWS ITEMS.

THE REPORT OF THE ACADEMY OF MEDICINE OF MADRID ON DR. FERRÁN'S SYSTEM.—The Sanitary Commission of Germany having recently pronounced against the system of inoculation practised by Dr. Ferrán, the decision of the Academy of Medicine of Madrid with reference to the same, is a matter of interest. Subjoined is the text of their conclusions.

The Academy agrees with the Commission which went to Valencia to investigate Ferrán's methods:

1. That the epidemic which commenced in the eastern provinces, and which afterwards extended to other provinces, is positively Asiatic cholera.

2. With respect to the controversy whether the epidemic is more contagious than infectious, as the Commission affirmed, or if it be infectious and not contagious, as mentioned by Señor Don Martin, in his separate note, the Academy limits itself to the statement that the illness of which it treats is transmissible from the infected points to healthy ones.

3. The Academy agrees also that the inoculation material used by Ferrán contains comma-bacilli, but adds also that the strength of the inoculation material varies with its preparation, *i. e.*, an equal quantity of the fluid may contain a greater or less number of bacilli.

4. The Academy cannot admit without restriction that inoculation is inoffensive, as affirmed by the Commission; for it is impossible to say that, supposing an artificial cholera be produced, it shall not cause some risk to places not attacked, and on account of individual idiosyncrasy, decomposition of the fluids used, or from other causes, not result in the injury of the inoculated individuals.

5. The Academy not having any exact and reliable statistics, is unable to report concerning the efficacy of the process.

6. The Academy agrees with the Commission, that no sufficient reasons exist to lead them to oppose inoculations under the responsibility of Dr. Ferrán, and believes that it is well to inform the public of the doubtfulness of the scientific nature of the inoculations, and of the possible effects of the inoculation upon those who submit to it.

7. The Academy neither defends nor recommends the procedure, as long as its method is kept secret or experience does not prove its efficacy.—*Wiener med. Presse*, Aug. 9, 1885.

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DR. HENRY B. SANDS has resigned the professorship of the Practice of Surgery at the College of Physicians and Surgeons. He will, however, continue his clinical work in connection with the institution.

MORE RESIGNATIONS FROM THE CONGRESS.—Dr. Alfred L. Carroll, of Albany, has declined the Vice-Presidency of the Section of Public and International Hygiene, Dr. Delavan Bloodgood, U. S. N., has declined the position of Councillor in the Section of Military and Naval Surgery and Medicine, and Dr. R. P. Lincoln, of New York, of Councillor in the Section of Laryngology.

THE SPECIAL MEETING OF THE CONGRESS COMMITTEE.—It is to be presumed that the meeting will undertake little else than the repair of damages—that is, the appointing of others to take the places of the distinguished men who have declined to take part in the present organization. That any such action will fail of its purpose seems to us unquestionable. We do not doubt, indeed, that men enough can be found who will be willing and even glad to hold official positions in a gathering that will be international only in name. But, allowing that the Committee made the best choice it could have made at Chicago, any selections that it makes now must necessarily be of inferior men, and it is doubtful even if men a grade below those first chosen would be willing to figure before the world as the recipients of appointments that had gone begging. It can scarcely be doubted, therefore, that the corps of appointees will be largely inferior to the remnants left by the recent defections. Far from having been mended, matters will then have been made worse; but, if this is to be the result, it is best that it should come promptly, that the remedy may follow the more speedily.—*New York Medical Journal.*

THE PRICE OF COCAINE.—Dr. Squibb, in *Ephemeris*, for July, 1885, in discussing the price of this hitherto high-priced drug, says:

If the cost of the process of extraction be a little over five cents a grain, the vial, label, and overweight in putting up would probably bring the cost up to six cents per grain, or a little more. Such articles are not worth making unless the profit upon them be liberal, especially until the losses in acquiring a good process be fully compensated; therefore, the salt should now bring at least ten cents per grain under the present very favorable conditions.

Under these conditions of market the writer, about June 15th, decided to reduce his price for hydrochlorate of cocaine, on July 1st, to ten cents per grain, thus getting it at once down to as low a price as it will be likely to reach in his hands, so long as the heavy tax of this country applies to alcohol and ether, and no less expensive solvents are applied.

This price, however, will certainly be low enough to enable the uses of the substance to be greatly extended.

NOTES AND QUERIES.

CASE OF PROLONGED GESTATION.

To the Editor of THE MEDICAL NEWS.

HEALTH DEPARTMENT, CITY HALL, Aug. 28, 1885.

SIR: I inclose copy (leaving out the names of parties) of a "return of a birth," received yesterday from one of our most respectable physicians, also give you a copy of his note appended, thinking it may prove of interest to some of the readers of your valuable journal, as it is certainly a very remarkable case, if all the statements are correct, and I have no reason at all to doubt them.

Very respectfully,

A. MARKS, Secretary.

RETURN OF A BIRTH TO THE OFFICE OF REGISTRAR OF VITAL STATISTICS, BOARD OF HEALTH, BALTIMORE CITY.

No. of child of mother (state whether first, second, third, etc.). Fifth.
1. Sex (state whether male or female). Female.
2. Race or color (if not of the white race). White.
3. Date of birth. Aug. 25, 1885.
4. Place of birth (street and number). 437 N. Calhoun St.
5. Full name of mother. Mary E. M.
6. Mother's maiden name. Mary E. P.
7. Mother's birthplace. Baltimore.
8. Full name of father. A. H. M.
9. Father's occupation. Trader.
10. Father's birthplace. Baltimore.

Name of medical attendant (or other person who makes this return). E. W. F., M.D.

Address. 192 N. Casey St.

Remarks.—"This is a very strange case. The mother says she has felt the movements of the child for over nine months, and has not menstruated for fourteen months." (See note appended.)

(Copy of Note.)

"Mrs. M., the mother of the child mentioned in this certificate, claims that she has felt the motion of the child for over nine months, and that she has not menstruated for fourteen months. She has been in a very critical condition for the past four months, and quite dropsical, thus obscuring her actual condition, and rendering a correct diagnosis very difficult. She was seen by quite a number of physicians, and was once taken to the Infirmary without any definite conclusion as to her condition.

"The mother of Mrs. M. confirms the statement of the daughter. The child is large (15¼ lbs.). Bones of the head firmly united at the sutures, and has the appearance of a child several months old, lifting its hand and looking around while being washed. Perhaps when I call next time I may find it toddling round the room.

"E. W. F."

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, FROM AUGUST 25, 1885, TO AUGUST 31, 1885.

CRONKITE, H. M., *Captain and Assistant Surgeon.*—Relieved from duty at Fort Reno, Indian Territory, and assigned to duty as Post Surgeon, Fort Hays, Kansas.—*S. O. 129, Department of the Missouri*, August 26, 1885.

DAVIS, WM. B., *Captain and Assistant Surgeon.*—Having reported for orders from leave of absence, assigned to duty at Fort Porter, N. Y., as Post Surgeon.—*S. O. 183, Department of the East*, August 28, 1885.

POWELL, J. S., *Captain and Assistant Surgeon.*—Relieved from temporary duty at Fort Leavenworth, Kansas, and assigned to duty as Post Surgeon at Fort Lyon, Colorado.—*S. O. 128, Department of the Missouri*, August 25, 1885.

KANE, JOHN J., *Captain and Assistant Surgeon.*—Granted leave of absence for one month, to take effect when his services can be spared.—*S. O. 195, A. G. O.*, August 26, 1885.

EBERT, R. G. *Captain and Assistant Surgeon.*—Assigned to temporary duty with U. S. troops at Riverside Park, N. Y.—*S. O. 179, Department of the East*, August 24, 1885.

MCCAW, W. D., *First Lieutenant and Assistant Surgeon.*—Assigned to temporary duty at the camp of the troops near Kiowa, Kansas.—*S. O. 128, Department of the Missouri*, Aug. 25, 1885.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY DURING THE WEEK ENDING AUGUST 29, 1885.

WM. H. JONES, *Surgeon.*—Detached from the Wachusett, and waiting orders.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLVII. SATURDAY, SEPTEMBER 12, 1885. NO. 11.

ORIGINAL ARTICLES.

A SERIES OF ONE HUNDRED AND TWELVE CONSECUTIVE OPERATIONS FOR OVARIAN AND PAROVARIAN CYSTOMA WITHOUT A DEATH.

BY LAWSON TAIT, F.R.C.S. ENG.

I HAVE already published a detailed statement of all my operations up to the end of December, 1883, and I bring forward the present series up to the 7th August, 1885, chiefly for the purpose of disposing, finally and for ever, so far as I am concerned, of the much-discussed question of Listerism in abdominal surgery. As I have repeatedly said in former publications, I tried the so-called antiseptic system in all its ever-varying details in as complete and unprejudiced a series of experiments as I believe it possible for man to undertake. I finally came to the conclusion that my patients were being poisoned by the use of carbolic acid, thymol, and various other chemical substances, which were being used by others as well as myself for the purpose of destroying the germs which were supposed to do so much harm. I published a series of cases which proved to my mind conclusively that I could do better without Listerism than with it, that in fact the only tendency of this so-called antiseptic system was to mar a success which was speedily increasing, and which arose from a variety of improvements, at the head of which was the discontinuance of the clamp.

In the practice of Sir Spencer Wells the introduction of Listerism and the introduction of the intraperitoneal method of dealing with the pedicle occurred almost at the same time, and it is not surprising that he should attribute his much-diminished mortality to Listerism rather than confess that he had retarded the advance of abdominal surgery for nearly a quarter of a century by his disregard of the lessons taught by Nathan Smith, Charles Clay, and Baker Browne.

Against my own conclusions there has been advanced more than once the argument that Dr. Keith had a long series of consecutive cases, seventy-two in number, whilst using Listerian methods. I now meet that argument by a still longer series of 112 consecutive cases, in not one of which has carbolic acid, or thymol, or corrosive sublimate, or any of the multifarious germicides, touched my patients either directly or indirectly. So far as I know, the present series has never been approached in its success, and as I have steadily reduced my mortality since I gave up the clamp from eight per cent. to six, five, and three per cent., till I have, as I may almost say, brought it to a vanishing point, I think my conclusions in previous papers are completely established. These conclusions were, in the main, that the great elements of my growing success were increased personal experience, increased attention to all the minute details which go to create success, and inattention to any one of which may defeat the best-laid plans. In addition to these, I may add scrupulous attention to cleanliness and an undeviating enforcement of discipline, both on the part of the patients and my staff of assistants.

The present series may be analyzed as follows:

Dermoid cyst	1
Cystic sarcoma	1
Abscess of ovary	2
Cystoma of one ovary	49
Cystoma of both ovaries	38
Parovarian cysts	21

Of this analysis very little need be said, except that it completely confirms my previous statement that removal of both ovaries for cystoma is not in any way a more serious operation than removal of one. It will be remembered that Sir Spencer Wells has always insisted that the contrary was the case, and it certainly was so in the cases where he used the clamp, another of the many arguments that the clamp, and that alone, was the cause of his tremendous mortality. In these eighty-nine cases of ovarian cystoma every kind of difficulty has been met with. The tumors have been in many instances of enormous size, and every variety and extent of adhesion has occurred; but neither size, nor extent, nor nature of adhesion seems now to make the slightest difference in the results of the operation. In every case where there has been a tendency to ooze, or where the patient has been advanced in life, I have used the drainage-tube, an addition to our means of saving life of which it is impossible to speak too highly. In every case but two the Staffordshire knot has been the means used for securing the pedicle, and here again is an improvement to which my success must be largely attributed: it never slips: I have had no trouble with secondary hemorrhage, and there have been no subsequent suppurations in the pelvis. In the two cases where the Staffordshire knot was not used, no kind of method of securing the pedicle was found to be of any avail, except securing it by a number of pressure-forceps, and leaving them in the pelvis, protruding through the wound for some forty hours after the operation, when they were cautiously removed one by one.

Of the parovarian cysts I can only say that the removal of many of them presented perfect simplicity in every detail, whilst the removal of others might be reckoned amongst the most ghastly and serious operations with which anyone could meet. The main difficulty in these operations consists of this, that the cysts having lifted the structures in the broad ligament bodily out of the pelvis, the tumors therefore not only present no pedicle, but present no free surface of any kind, and they have to be dealt with entirely by the method of enucleation originally devised by Dr. Miner. These cases, until 1876, would all have

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No	Residence.	Medical Attendant.	Age.	M. or S.	Disease.	Operation.	Date.	Remarks.
							1884.	
1	Tamworth	Dr. Fausset	26	M.	Cystoma	Left ovary	3 i.	
2	Newport (Mon.)	Dr. James	56	M.	Cystoma	Right ovary	5 i.	
3	Birmingham	Dr. Smith	37	M.	Paro. cyst	Removed	7 i.	
4	Birmingham	L. T.	53	M.	Cystoma	Right ovary	10 i.	
5	Smethwick	Dr. Annie Clarke	32	M.	Cystoma	Right ovary	12 i.	
6	Birmingham	L. T.	55	M.	Cystoma	Right ovary	15 i.	
7	Stafford	Mr. Weston	31	S.	Dermoid cyst	Right ovary	18 i.	
8	Hexham	Dr. Farmer	30	M.	Abscess of ovary	Right ovary	18 i.	
9	Oswestry	Dr. Beresford	54	M.	Paro. cyst	Removed	19 i.	
10	Birmingham	L. T.	40	M.	Cystoma	Right ovary	2 ii.	
11	Birmingham	Dr. Sawyer	59	M.	Cystoma	Right ovary	14 ii.	
12	Bilston	Dr. Larkin	35	M.	Cystoma	Left ovary	14 ii.	
13	Rugby	Dr. T. Duke	33	S.	Cystoma	Both ovaries	28 ii.	
14	Birmingham	Dr. Simon	30	M.	Cystoma	Left ovary	10 iii.	
15	Birmingham	Dr. Craig	37	M.	Paro. cyst	Removed	12 iii.	
16	Birmingham	L. T.	32	S.	Paro. cyst	Removed	13 iii.	
17	Birmingham	Mr. Newton	34	M.	Cystoma	Right ovary	13 iii.	
18	Aston	L. T.			Cystoma	Both ovaries	20 iii.	
19	Luton	Dr. Evans	18	S.	Paro. cyst	Removed	21 iii.	
20	Birmingham	Mr. Pugh	27	S.	Cystoma	Left ovary	26 iii.	
21	Birmingham	Dr. Ward	29	M.	Cystoma	Both ovaries	27 iii.	
22	Birmingham	Dr. Hugh Thomas	45	M.	Cystoma	Right ovary	3 iv.	
23	Wolverhampton	L. T.	63	M.	Cystoma	Left ovary	10 iv.	
24	Birmingham	Mr. Briggs	22	M.	Cystoma	Right ovary	26 iv.	Rotated and gangrenous.
25	Nottingham	Mr. Evan Smith	35	M.	Paro. cyst	Removed	3 v.	Rotated and gangrenous.
26	Birmingham	Mr. Harmer	22	S.	Cystoma	Both ovaries	3 v.	
27	Birmingham	Mr. Palmer	42	M.	Cystoma	Right ovary	6 v.	
28	Derby	Dr. Bedford	57	M.	Cystoma	Left ovary	8 v.	
29	Kidderminster	Dr. Colbourn	27	S.	Cystoma	Left ovary	9 v.	
30	Manchester	Dr. Handford	23	S.	Cystoma	Left ovary	12 v.	
31	Birmingham	Mr. F. Hopkins	40	M.	Cystoma	Right ovary	13 v.	Rotated and gangrenous.
32	West Bromwich	L. T.	51	M.	Cystoma	Right ovary	13 v.	
33	Birmingham	L. T.	43	M.	Cystoma	Left ovary	16 v.	
34	Leamington	Dr. Wyer	29	S.	Cystoma	Both ovaries	24 v.	
35	Llantrissant	Dr. Davies	48	M.	Paro. cyst	Removed right side	26 v.	Rotated and gangrenous.
36	Bridgnorth	Dr. Thursfield	46	M.	Cystoma	Both ovaries	26 v.	
37	Aston	Mr. Whitcombe	34	S.	Paro. cyst	Removed right side	27 v.	Rotated and gangrenous
38	Ross	Mr. Norman	44	M.	Cystoma	Both ovaries	3 vi.	
39	Walsall	Dr. Sharpe	42	M.	Cystoma	Both ovaries	12 vi.	
40	Birmingham	L. T.	36	M.	Cystoma	Both ovaries	16 vi.	
41	Leamington	Dr. Smith	64	M.	Cystoma	Both ovaries	20 vi.	
42	Pershore	L. T.	28	S.	Cystoma	Left ovary	21 vi.	
43	Birmingham	L. T.	22	S.	Cystoma	Both ovaries	27 vi.	
44	Oswestry	Dr. Aylmer Lewis	33	M.	Cystoma	Both ovaries	29 vi.	
45	Birmingham	L. T.	42	M.	Cystoma	Both ovaries	2 vii.	
46	Coventry	Dr. Fenton	29	S.	Paro. cyst	Removed	3 vii.	
47	Leamington	Mr. Morris	27	M.	Cystoma	Right ovary	4 vii.	
48	Birmingham	Mr. Gilbert Smith	43	M.	Cystoma	Both ovaries	7 vii.	
49	Wrexham	Dr. Davies	20	S.	Cystoma	Right ovary	21 vii.	
50	Stonehouse	Dr. Watters	51	M.	Cystoma	Left ovary	22 vii.	
51	Wolverhampton	Dr. Lycett	45	M.	Cystoma	Both ovaries	22 vii.	
52	Kidderminster	Dr. Waddell	43	M.	Cystoma	Both ovaries	26 vii.	
53	Birmingham	Dr. Haynes	26	M.	Cystoma	Both ovaries	28 vii.	
54	Birmingham	Mr. Lawrence	22	S.	Cystoma	Left ovary	29 vii.	
55	Oldham	Dr. Stanfield	38	M.	Cystoma	Both ovaries	10 viii.	
56	Coventry	Dr. Handford	37	S.	Cystoma	Left ovary	10 x.	
57	Stourbridge	L. T.	35	S.	Cystoma	Right ovary	13 x.	
58	Birmingham	Dr. Hoare	27	M.	Cystoma	Both ovaries	17 x.	
59	Birmingham	Mr. Harmar	29	M.	Paro. cyst	Removed	20 x.	
60	Birmingham	Dr. Kenny	28	M.	Cystoma	Both ovaries	23 x.	
61	Birmingham	Dr. Hadley	41	M.	Cystoma	Both ovaries	23 x.	
62	Birmingham	L. T.	24	S.	Paro. cyst	Removed	31 x.	
63	Birmingham	Dr. Thomas	28	M.	Paro. cyst	Removed	31 x.	
64	Birmingham	Mr. Green	50	M.	Cystoma	Left ovary	10 xi.	
65	Kidderminster	Dr. Langford	63	M.	Cystoma	Right ovary	20 xi.	
66	Tipton	Dr. Price	32	S.	Cystoma	Both ovaries	23 xi.	
67	Southport	Dr. Craven	26	S.	Cystoma	Both ovaries	29 xi.	
68	Birmingham	L. T.	27	M.	Cystoma	Both ovaries	20 xii.	
69	Birmingham	L. T.	28	S.	Cystoma	Both ovaries	23 xii.	
							1885.	
70	Birmingham	Mr. Lloyd	32	M.	Cystoma	Left ovary	6 i.	
71	Nottingham	Dr. Elder	59	M.	Cystoma	Left ovary	8 i.	
72	Birmingham	Mr. Harmar	30	S.	Cystoma	Left ovary	17 i.	
73	Derby	Mr. Taylor	40	M.	Paro. cyst	Removed	23 i.	
74	Wellington	Dr. Glissan	29	S.	Cystoma	Both ovaries	3 ii.	
75	Melbourne	Dr. Elder	34	S.	Cystoma	Left ovary	7 ii.	
76	Leamington	Dr. Tomkins	70	S.	Cystoma	Both ovaries	11 ii.	
77	Harrogate	Dr. Myrtle	25	S.	Paro. cyst	Removed	16 ii.	
78	Birmingham	L. T.	32	S.	Cystoma	Both ovaries	19 ii.	
79	Monmouth	Dr. Wollett	16	S.	Paro. cyst	Removed	2 iii.	
80	Wolstanton	Dr. Massingham	60	M.	Cystoma	Right ovary	27 iii.	

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No.	Residence.	Medical Attendant.	Age	M. or S.	Disease.	Operation.	Date.	Remarks.
81	Evesham	Dr. Blake	34	S.	Cystoma	Both ovaries	14 iv.	
82	Leamington	Dr. Jay	30	S.	Cystoma	Right ovary	17 iv.	
83	Birmingham	Dr. Hoffman	30	M.	Cystoma	Both ovaries	18 iv.	
84	Burton-on-Trent	Dr. Clements	23	S.	Cystoma	Right ovary	23 iv.	
85	Ashby-de-la-Zouch	Dr. Williams	23	M.	Abscess of ovary	Right removed	24 iv.	
86	Birmingham	Mr. Leach	40	M.	Cystoma	Both ovaries	28 iv.	
87	Leamington	Dr. Whitby	43	S.	Cystoma	Right ovary	2 v.	Rotated and gangrenous.
88	Ashby-de-la-Zouch	Dr. Betts	33	M.	Cystoma	Both ovaries	14 v.	
89	Birmingham	L. T.	35	M.	Cystoma	Both ovaries	15 v.	
90	Birmingham	Dr. Malins	25	M.	Paro. cyst	Removed	15 v.	
91	Ludlow	Mr. Brooks	44	M.	Cystoma	Right ovary	26 v.	
92	Willenhall	Mr. Hartill	26	S.	Cystoma	Right ovary	29 v.	Rotated and gangrenous.
93	Bridgnorth	Mr. Rhodes	43	M.	Cystoma	Both ovaries	5 vi.	
94	Birmingham	Dr. Parkes	25	M.	Cystoma	Right ovary	9 vi.	Rotated and gangrenous.
95	Birmingham	L. T.	27	M.	Cystoma	Both ovaries	16 vi.	
96	Birmingham	Mr. Nicholls	24	M.	Cystoma	Both ovaries	20 vi.	
97	Burton-on-Trent	Dr. Hooper	25	M.	Cystoma	Both ovaries	21 vi.	
98	Birmingham	Mr. Hallwright	34	M.	Cystoma	Right ovary	22 vi.	Rotated and gangrenous.
99	Birmingham	Dr. Parkes	23	S.	Cystoma	Both ovaries	3 vii.	
100	Thirsk	Dr. Hartley	53	M.	Paro. cyst	Enucleated	14 vii.	
101	Stourbridge	Dr. Pearson	14	S.	Cystoma	Left ovary	18 vii.	
102	Birmingham	Dr. Phillips	34	M.	Abscess of ovary	Right removed	20 vii.	
103	Birmingham	Dr. Shillito	40	M.	Paro. cyst	Removed	20 vii.	Rotated and gangrenous.
104	Rugeley	Mr. Freer	50	S.	Cystic sarcoma	Right ovary	21 vii.	
105	Birmingham	Mr. Marriott	36	M.	Paro. cyst	Removed	23 vii.	
106	Shrewsbury	Dr. Rigby	36	M.	Cystoma	Left ovary	25 vii.	
107	Cheltenham	Mr. Cocks Johnson	25	S.	Cystoma	Both ovaries	25 vii.	
108	Birmingham	L. T.	31	M.	Paro. cyst	Enucleated	26 vii.	
109	Birmingham	Dr. Fitch	19	S.	Cystoma	Right ovary	28 vii.	
110	Birmingham	Dr. Hollinshead	46	M.	Cystoma	Right ovary	4 viii.	
111	Hereford	Mr. Turner	31	S.	Cystoma	Right ovary	4 viii.	
112	Birmingham	Dr. Notley	47	S.	Paro. cyst	Enucleated	7 viii.	

been recorded as incomplete operations, for what used to be done both by myself and by others was to remove about a quarter of the cyst and stitch the stump to the wound, trusting to it healing by suppuration and granulation. But to my sorrow I found that these cases did not heal, that they went on suppurating for months and years, and finally died. Now I completely enucleate the cysts, regardless of the extent or nature of adhesions, and have done so without failure in any instance, taking the cyst out of the pelvis from intimate association with every organ in it. The operations are tedious and difficult, and the bleeding is sometimes most profuse, but sponge packing, and occasional touch of the cautery, and the drainage-tube, have given me success in every instance. The cavities in which the tumors were set have all completely healed, and not a single sinus remains in any of my patients.

Parovarian cysts have a peculiar tendency to rotate on their axis, and to become strangulated and gangrenous. This complication leads to acute peritonitis, and the patients, if not relieved by immediate operation, die. In the present series there have been ten cases of these rotated and gangrenous tumors, and without a single exception they have grown from the right side and have been rotated from the left side forwards into the right. This completely establishes the theoretical explanation of the axial rotation of ovarian and parovarian tumors, which I advanced in 1880 in a paper read before the Obstetrical Society. So extensive now has been my experience of this peculiar complication, that in one case (94) I actually made the diagnosis without seeing the patient under the following circumstances. Feeling rather out of sorts one evening I had gone to bed unusually early, and after having retired I was aroused by my friend Dr. Parkes, who came to tell me of a case in which he wanted my assistance and of which he gave me the following brief history. The patient had been confined about three weeks before and had made a perfectly easy and rapid recovery, but about fourteen days after her confinement she drew Dr. Parkes's attention to a lump just above the pelvis, and this he thought was the uterus in a condition of subinvolution, and regarded it as of no moment; but, very much to his surprise, in three or four days it was very much larger, and on the morning of his seeking my assistance the patient was suddenly attacked by violent pain, and he found the tumor as big as an adult's head above the brim of the pelvis. I told him that there could be no doubt that it was an instance of an ovarian tumor growing with great rapidity after confinement, as I had seen occur in many instances, and that it had rotated on its axis and was becoming gangrenous. I agreed to see the patient with him the next morning early. The acute symptoms had somewhat subsided by the time I saw her, but the tumor, Dr. Parkes assured me, was quite one-third larger than it had been the previous day. There could be no doubt that the diagnosis which I had given the preceding evening was the correct one, and we at once removed the patient from her home to my private hospital. I opened the abdomen within three hours of her arrival, and found the tumor to be the right ovary with a pedicle twisted nearly three revolutions, the tumor quite black and semi-gangrenous, and the contents of its cavity consisting of at least three parts blood.

Of the subsequent history of these patients, remarks need only be made upon two. One (76) was an old lady aged seventy, from whom I removed a rapidly growing tumor of immense size. I had a suspicion

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at the time of the operation that there was something more the matter with her than the tumor, and although she made a wonderful convalescence considering her advanced age, and got about for some time after the operation, she died suddenly shortly after her return home, without any symptoms which could be definitely referred to a specific ailment. After death she was found to be suffering from an abscess of the liver. The other (41) is now suffering from general papilloma of the peritoneum, has become dropsical, and of course will die in the course of a few months.

Only one other point requires notice, and that is, that during the time occupied by the performance of this series—that is, from the 1st January, 1884, to the 7th August, 1885—I have not left incomplete any operation begun for ovarian or parovarian cystoma, and this is to me the most satisfactory fact in the history of the series.

AN OPERATION WITH A DOUBLE NEEDLE, OR BIDENT, FOR THE REMOVAL OF A CRYSTALLINE LENS DISLOCATED INTO THE VITREOUS CHAMBER.

BY CORNELIUS R. AGNEW, M.D.,

CLINICAL PROFESSOR OF DISEASES OF EYE AND EAR IN THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

To remove a dislocated lens from the anterior chamber of the eye is difficult, and to remove one from the vitreous chamber and save the integrity of the organ is perilous, and more difficult than any other operation in ophthalmic surgery. Excellent authorities therefore agree in recommending, in many cases, the practice of enucleation rather than to incur the immediate and later risks of attempted removal of dislocated crystalline lenses.

In numerous cases of dislocated lens the aqueous and vitreous humors are altered in their physical condition, being commingled or degenerated. When that is so, the instant that an opening is made for introducing a scoop, or other instrument, to extract the misplaced and mobile lens, there is a quick loss of the fluid contents of the eye. The eye wall falls in, the cornea crumples, and the lens eluding the instrument used for its removal, sinks into the vitreous chamber. If detachment of the retina or choroid with hemorrhage does not immediately occur, great violence is done by the operator in prodding after the lens. If the lens be finally extracted, secondary consequences occur, which cause the wounded eye to be very irritable and prone to become the focus of sympathetic trouble for the fellow eye. To avoid so direful a sequel, cautious operators have preferred to enucleate the eyeball in which there is a misplaced lens, instead of attempting to extract. This conclusion, reached by so many, has no doubt been furthered by the difficulties attending the fixation and subsequent extraction of the dislocated lens with the least loss of the fluid contents of the eye, and with the least traumatism.

Having had many cases of dislocated lens in the thirty years of my public and private work, I had come to look upon them as very embarrassing. I had also had occasion to know from actual trial, and with a fair amount of dexterity, the difficulties attending all the proposed methods for the removal of the offending body. Considering the alternative of enucleation, I could not help remembering that, easy as the mechanical part of that procedure is for the merest tyro in ophthalmic surgery, it is not without grave drawbacks for its subjects. A quiet, sightless eyeball, unless so enlarged as to be monstrous and a conspicuous deformity, is far better than the best fitting artificial eye. Furthermore, the history of the sockets left by entire enucleation is not, by any means, one of unbroken satisfaction. Enucleation is always a serious mutilation, and, like an amputation, should never be done if any other less radical procedure is practicable and prudent. I cautiously dissent from the doctrine, that, inasmuch as danger to a fellow eye may possibly occur at a more or less remote epoch in cases supposed to resemble those in which sympathetic trouble has been known to happen, therefore, we should always enucleate in a case in which sympathetic disease *may* possibly result. A considerable, and probably an increasing, number of cases in which sympathetic disease is not present, may be safely treated upon the expectant plan, or by surgical procedures in which less than the entire eyeball is sacrificed.

Believing that the impossibility of removing dislocated lenses, in some cases, without inflicting upon the eye destructive violence, had induced surgeons to resort to enucleation, it occurred to me to attempt so to modify the existing methods as to lessen what seemed to me to be the greatest difficulty, namely, to secure fixation of the lens in an accessible place, till a corneal wound had been made sufficient for its removal; and, in addition, to use the lens by means of the instrument of fixation, so as to plug the pupil more or less closely and retard the efflux of the fluids of the eye to as late a moment as possible in the manœuvre. If this is attempted by the use of a single needle, it may not be possible to raise the lens, if it be submerged in the vitreous humor. If it be raised, it may not be possible to prevent its falling over the needle and becoming again submerged, thus provoking the operator to dip his instrument again and again in the depths of the eye, to the injury of the tissues through which it penetrates or is swept. If the single needle is so used as to lift the lens and hold it near enough to the anterior chamber to be easily accessible after corneal section, its handle must be intrusted to an assistant, and thus it happens that two operators are acting in some of the steps of the operation without the indispensable benefit of accurate and unfailing coöperation. It is much better in those surgical manœuvres in which the quality of the result must depend greatly upon the harmony of consecutive steps that one will should be in control. This rule holds, however skilful and accordant the assistant may be.

Influenced, then, by the two foregoing considerations, among others, I devised the double needle, or bident, which is shown in the illustrations which accompany the narrative of the following case.

I. M., æt. 27, has been blind in his right eye from earliest infancy. The form and general appearance of the exterior of the organ are normal. Its iris is

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tremulous, the pupil contractile, and somewhat more dilated than that of the fellow eye. Its crystalline lens is of full size, or nearly so, opaque and mottled, as from beginning calcific degeneration. The lens is also so loose that it moves to and fro with a quick, volatile motion, though suspended, on the temporal side, by a narrow, hinge-like attachment of the suspensory ligament. When the patient throws his head back the lens is snatched out of the direct view of the observer, but may be seen by oblique inspection in the temporo-ciliary region. The eye is sometimes irritable, but seldom, if ever, reddened, and there is constantly present a sense of something in motion in the eye.

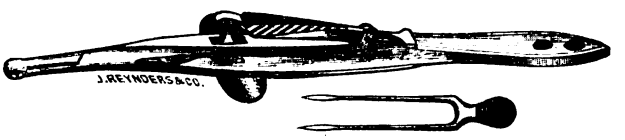
The patient is painfully conscious of the startling deformity which the perpetual appearance and disappearance of the white lens in a dark pupil produces on every motion of the eye and head. For some time the fellow eye has also engaged his attention, partly because its endurance seemed to be lessened, and partly because apprehension has arisen lest sympathetic disease might make an insidious invasion. Although, for many years intolerant of the idea of any operative interference, he has at last become convinced that he cannot much longer endure the irksomeness of his condition, and the dangers which threaten the faulty organ. The vision of his well eye is $\frac{20}{15}$, that of the fellow eye = o.

Several surgeons had examined the case, and more recently, at my suggestion, he sought the advice of a most eminent colleague in New York. The latter advised that the troublesome eye should be enucleated, instead of any attempt being made to remove the dislocated lens. In this the patient would not acquiesce. He therefore went to his home, in a distant city, but almost immediately returned again to New York, as the eye seemed to be worse, and sympathy in its fellow more noticeable.

After explaining that my attempts to remove the lens might fail, and that it might be expedient, during the course of such an operation, to resort to immediate enucleation, the patient left the matter entirely in my hands.

Believing that the ordinary methods for the removal of a lens dislocated into the vitreous humor would fail, I devised the procedure which is now offered for consideration. I dilated the pupil with atropia, but could not produce as wide dilatation as might have been expected in a normal eye. I then placed the patient on his back in charge of the following medical colleagues: Drs. Webster, Coleman, Beard, and Ring, requesting them to keep his head as immovable as possible, to avoid the complete detachment of the lens. We then gave ether as thoroughly as possible. Observing that the eye retained some sensibility even after the breathing of the patient had become stertorous, and wishing to have analgesia of the organ, we instilled a few drops of four per cent. solution of hydrochlorate of cocaine upon the conjunctival surface. I next opened the eyelids with a Gräfe's speculum, and fixed the eye by grasping the tissues between the insertion of the inferior rectus and the margin of the cornea with ordinary fixation forceps. Looking in through the pupil we could just discern the dislocated lens lying far to the temporal side of the vitreous chamber in the ciliary region. I now brought into use the little appliance with which we hoped to facilitate the removal of the lens. The instrument, with its handle, a Sands's needle-holder, is delineated in the first illustration.

FIG. 1.



It consists of two ordinary, fine, straight, delicately pointed, cataract needles, about six-eighths of an inch long, fixed parallel at a distance a little less than an eighth of an inch apart. These needles are united at their proximal ends by a projection which is flat, and otherwise so shaped and roughened as to be adapted to the grasp of the beak of a holder, such as that known in the shops as Sands's needle-holder. Although averse to laying any claim whatever as an inventor of new instruments, I may, perhaps, venture to call the needles a bident.

Having mounted the bident in the holder with the thumb catch of the latter uppermost, and having the eyeball firmly fixed as previously stated, I penetrated the temporal aspect of the eyeball at a point just far enough back to enter the vitreous chamber without wounding the iris, or touching the dislocated lens, till the bident had penetrated the vitreous humor to a point a little to the temporal side of its centre. I then, by depressing the handle of the holder, caused the points of the bident to describe an arc forwards. I was greatly pleased to see the lens caught on the bident—as a pea might be lifted on a two-tine fork, and brought forward through the pupil into the anterior chamber. I then pushed the bident on and caused its points to emerge on the nasal side of the eyeball close behind, but avoiding the iris.

The neat completion of the wound of exit was insured by placing the end of the forefinger of my left hand upon the surface of the eyeball at the point to which I was directing the bident. In this manner the scleral conjunctiva being pressed upon the points of the bident they were passed so quickly through the subconjunctival space after penetrating the sclerotic as not to let any fluid flow into and distend the subconjunctival connective tissue. The holder was then detached from the bident, and the lens remained free upon its prongs and pressed against the cornea, as shown in the second illustration.

With a narrow Gräfe's knife I then made a sufficient wound in a downward direction in the cornea, and easily completed the delivery of the lens with a delicate wire or skeleton spoon. Under similar circumstances I might probably deliver the lens by a partial withdrawal of the bident and dispense with the use of the spoon.

I then removed the bident with the holder. Although this was done without difficulty, I would prefer, under similar circumstances, to do it with my thumb and forefinger, as being quite easy, and thus avoiding the necessity of applying the holder a second time. Not applying the holder would cut

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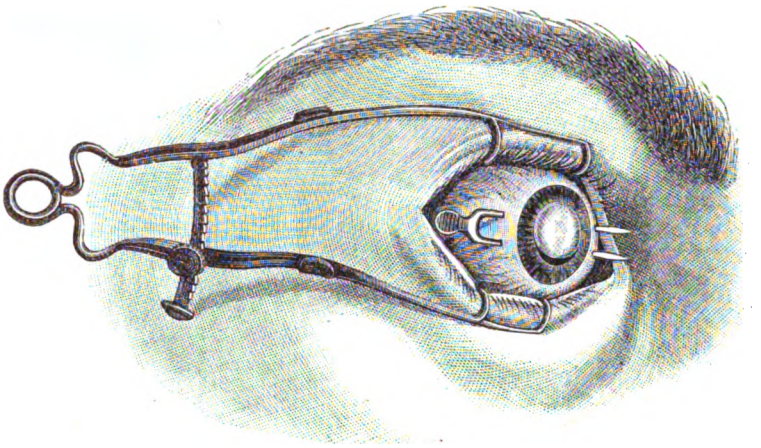
off one movement from the manœuvre. There was scarcely any appreciable escape of fluid, as the lens seemed to plug the pupil, and on its delivery the bident was instantly removed. The corneal wound fell into neat coaptation, and there was no prolapse of iris.

FIG. 2.



I then closed both eyes, greased the surface of the eyelids with white vaseline, applied light compresses of absorbent cotton, a thin flannel bandage, and over all a black silk mask. The patient was placed in bed on his back, and much motion and all forms of excitement forbidden.

For two days the dressings were not removed. At the end of that time they were removed, the entire surface of the eyelids washed with warm solution of hydrarg. bichloride, one to two thousand, and some of the same solution allowed to penetrate the palpebral slit. As the eye was somewhat painful and reddened, a drop or two of a two per cent. solution of sulphate of atropia and of a four per cent. solution of hydrochlorate of cocaine was also instilled, and the dressings reapplied. Such was the course pursued.

The recovery was continuous and uneventful. The operation was done November 13, 1884, and the cure was complete December 1, 1884. The pupil remained responsive to light. It had become a little drawn in the direction of the corneal wound, though contractile and not adherent.

As the eye had been quite blind from infancy, no vision was expected after the operation. Subsequent ophthalmoscopic examination revealed extensive plaques of old choroidal and retinal atrophy, with complete atrophy of the optic nerve, lesions antecedent to or soon following birth.

January, 1885.—Patient has been again under observation for an affection of the ear. The eye is well, and the result in every way satisfactory to the patient, to my friend, Dr. Webster, and to myself.

It may be said that the lens might have been removed by using a large spoon through a section of the cornea with or without iridectomy. That with other methods was considered and dismissed as impracticable. I had had the case under observation for more than seven years, and studied it in the light of every known surgical procedure. I do not think I could have met the indications with any of the methods previously in use.

That the method is applicable to all cases of dislocated lens, especially those in which the lens is in the anterior chamber, I do not claim. It is even possible that it may be relegated, after further trial, to the list of the curiosities of ophthalmic surgery. The method of inserting a single needle, or a bident, by means of a detachable needle-holder, may prove of value in certain cases of foreign body in the chambers of the eye. I recall cases of other foreign bodies than dislocated lenses, in which I would have got valuable aid from it.

DISINFECTANTS.

PRELIMINARY REPORTS OF THE COMMITTEE ON DISINFECTANTS OF THE AMERICAN PUBLIC HEALTH ASSOCIATION.

XVII.

SULPHITES.

BY GEORGE M. STERNBERG, M.D.,
SURGEON U. S. ARMY.

SODIUM SULPHITE AND SODIUM HYPOSULPHITE.

MY experiments made at San Francisco (*American Journal of the Medical Sciences*, April, 1883) show that these salts in concentrated solution have no germicide power. The micrococcus of pus was not killed by exposure for two hours to a thirty-two per cent. solution, and a saturated solution failed to destroy the bacteria in broken-down beef-tea. Arloing, Cornevin, and Thomas found that exposure for forty-eight hours to a fifty per cent. solution of sodium hyposulphite does not destroy the virus of symptomatic anthrax. It is evident, from the experimental evidence on record, that these salts have no value, either as germicides or as antiseptics, *except in the presence of some chemical agent which will liberate the sulphurous acid.*

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BISULPHITE OF LIME, BISULPHITE OF ZINC, BISULPHITE OF SODA, TERSULPHITE OF ALUMINIUM.

A manufacturing chemist of New York sent me, last spring, samples of the above-mentioned salts in solution, and I made a number of tests to determine their comparative germicide power. The results obtained indicate that their value as disinfectants depends upon the amount of sulphurous acid which they contain. All of the solutions gave off sulphurous acid gas constantly when not kept in tightly corked bottles; and, in adding them to broken-down beef-stock, an abundant liberation of this gas occurred.

The solution of bisulphite of lime gave the best results. In the proportion of five per cent. this destroyed the vitality of *M. tetragenus*, the test organism employed. The solution of bisulphite of zinc and tersulphite of aluminium failed to destroy the same micrococcus in the proportion of five per cent., but were successful in ten per cent. The solution of bisulphite of soda failed upon the same organism in ten per cent. I have lost my memorandum giving the specific gravity of these solutions, but believe them to have been saturated solutions of the salts named.

XVIII.

THE COMPARATIVE ANTISEPTIC VALUE OF THE SALTS AND OXIDES OF MERCURY.

BY GEORGE M. STERNBERG, M.D.,
SURGEON U. S. ARMY.

IN the introduction to this series of preliminary reports the statement is made that "a complete investigation of both disinfectants and antiseptics being impracticable in the time and with the resources at command, the Committee decided upon so far departing from the letter of the resolutions of Dr. Hibberd as to limit its inquiry altogether to disinfectants, and to omit all investigations into the action of antiseptics."[1]

The present article is the result of a departure from this rule which the writer has made with reference to the salts and oxides of mercury, because of the special interest which they have from a therapeutical point of view, and because of the important indications which seem to be furnished by their antiseptic power for restricting the development of pathogenic organisms in the alimentary canal, as well as in masses of decomposing organic material which might serve as pabulum for disease germs external to the body.

With the assistance of Dr. Abbot, I have recently made a series of experiments, the results of which are given in the following table:

	Active.	Failed.
Biniodide of mercury	1 : 20,000	1 : 40,000
Bichloride "	1 : 15,000	1 : 20,000
Protiodide "	1 : 10,000	1 : 20,000
Yellow oxide "	1 : 1,000	1 : 2,000
Black oxide "	1 : 500	1 : 1,000
Calomel	1 : 100	
Blue mass	1 : 100	

[1] THE MEDICAL NEWS, January 24, 1885, p. 87.

In every case the antiseptic was carefully weighed and added to 100 cc. of beef peptone solution, or of veal broth. A similar quantity of the culture fluid was put up as a *témoin* without the addition of the antiseptic. As the oxides and iodides of mercury are insoluble in water, the bottle was repeatedly shaken in order to dissolve in the albuminous culture fluid as much of the antiseptic as possible. An undissolved remnant could, however, be recognized at the bottom of the bottle after this repeated shaking. Two drops of broken-down beef-stock were added to each bottle to cause speedy putrefaction of the culture fluid in the absence of a sufficiently potent inhibition of the developing power of the bacteria of putrefaction. In every case in the comparative experiment the culture fluid became clouded, and had a putrefactive odor at the end of twenty-four hours.

The first column in our table shows the proportion in which the culture fluid was preserved from any appearance of decomposition for at least a week, the duration of the experiment. In the proportion given in the second column a decided inhibiting power was shown, except in the case of calomel and blue mass, which, in the proportion given (1 : 100), gave no evidence of antiseptic power. The other salts and oxides in the list prevented decomposition for twenty-four hours in the proportion given in the second column; and it was not until the second day that the bacteria of putrefaction commenced to form a cloud at the upper surface of the fluid, which gradually extended until the fluid had entirely broken down, usually by the third or fourth day. The bottles containing the biniodide (1 : 20,000), and the bichloride (1 : 15,000) have now been standing in the laboratory for three weeks, and are as transparent and free from odor as the day they were put up. These results agree with those reported by Miquel.

So far as I know, the antiseptic value of the protiodide and of the oxides of mercury has not heretofore been determined. I shall refrain at present from making any remarks upon the therapeutic possibilities which these figures suggest, or upon the possible explanation of the *modus operandi* of the protiodide, given daily for many months in the cure of syphilis, or of the use of yellow oxide as a remedy for septic fermentation in the alimentaay canal. The still greater inhibiting power of mercuric chloride for the spores of *B. anthracis* has already been referred to in my paper published in THE MEDICAL NEWS o February 21st, p. 206.

The following simple experiment may, perhaps, serve to explain the demonstrated value of calomel as an "alterative" in bowel complaints attended with offensive discharges: If a little calomel is shaken up in a test-tube with putrid beef-tea, a *black precipitate* is thrown down. I have made no attempt to examine this black precipitate chemically, but it can scarcely be anything else than the black oxide of mercury, which my recent experiments show has decided antiseptic power when present in putrescible material in the proportion of 1 : 1000, and entirely prevents the putrefactive decomposition of beef peptone solution in 1 : 500.

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HOSPITAL NOTES.

THE CLINIC FOR NERVOUS AND MENTAL DISEASES, BERLIN.

A CASE OF TABES DORSALIS, COMPLICATED WITH PROGRESSIVE MUSCULAR ATROPHY.

Service of DR. MENDEL.

Reported by F. HERBERT HACKER, M.D.,
of Charleston, S. C.

THE patient, who is a shoemaker, 37 years of age, claims to have enjoyed good health, with the exception of the usual diseases of childhood, up to the development of his present disease. Excesses in wine or venery are positively denied. Patient was actively engaged in the Franco-Prussian war, and began to suffer in 1873, from attacks of severe pains in limbs and back, as also from a feeling of constriction over thorax and abdomen; these latter pains he describes as having been of peculiar severity.

He ascribes these symptoms to exposure during the campaign, and he took them at the time for rheumatism. In 1874 the patient noticed that the muscular power of his lower extremities began to diminish; he also began in this year to suffer from severe attacks of what he calls "indigestion," complicated with severe pains in the head. He complains now of urinary trouble—dysuria. The patellar phenomenon is absent; the pupils do not react to changes of light. Paræsthesia seems, however, not to be present. Patient exhibits well-marked ataxia in his gait.

In this case the diagnosis is extraordinarily easy. The gradual inception with rheumatoid pains, the constricted feeling over breast and abdomen (which are almost pathognomonic of the disease in question, and are but rarely absent), the attacks of so-called indigestion, the absence of the reflex movement on percussion over the tendon of the quadriceps, and the ataxic gait, point with positive certainty to but one disease, viz., *tabes dorsalis*, or, as it is sometimes called, *progressive locomotor ataxia*, a disease which has its seat in the posterior columns of the cord, and which usually produces finally sclerotic changes of these columns. The attacks of "indigestion," of which the patient complains, are nothing more nor less than what is so often observed in this clinic, and known under the name of *crises gastriques*. They are very frequent in the course of tabes, and are best treated—as they depend, not on local causes in the stomach itself, but on destructive changes in the nervous centres—with minute doses of morphine; medicines directed against the "indigestion," as such, are useless.

So far everything is quite clear and simple, but on causing the patient to remove his clothing, and examining him more closely, we see other changes which are not so easily explained. First we notice that the muscular system, as a whole, is but weakly developed, and that certain muscles are atrophied to a considerable extent. The rotundity of the left shoulder is entirely gone, owing to excessive atrophy of the deltoid muscle on that side; on the right side this change is not present; on both sides the infraspinati muscles are very much atrophied; the right serratus magnus is so far gone that the flat of the hand can easily be inserted between thorax and scapula; both nates are sunken in from disappearance of the gluteal muscles, so that in place of the normal rotundity of the parts, there are two large hollows, or depressions, on each side. The muscles of the head and tongue are intact. These changes, the patient tells us, have come on gradually, and are progressive in character. Such progressive *atrophia musculorum* may be owing to one of five causes, and we shall endeavor to find out the one which is at work in our present case:

1. It may result from disuse and inactivity of the affected muscles. 2. It may be produced by peripheral neuritis, in which case other changes and symptoms are also present. 3. It may be owing to peripheral disease, as in *pseudohypertrophia musculorum*. 4. It may be consecutive to inflammatory diseases of the articulations. 5. It may be produced by diseases of the central nervous system, more especially by disease of the anterior cornua of the gray matter of the cord, *poliomyelitis anterior*, which may occur either as an acute or as a chronic affection; the acute form constituting the anatomical basis of the so-called "essential infantile paralysis" of Rilliet and Barthez, the chronic form producing the true "progressive muscular atrophy."

In our case there can be no doubt that neither of the first four causes is at all applicable; the patient has always been engaged in active muscular work, which has kept nearly the entire muscular system at work, nor is the atrophy evenly distributed; he has never suffered from neuritis nor from inflammatory joint affections, so that the first three causes can be excluded, and as the atrophy from which he suffers is not accompanied by a corresponding hypertrophy, we may also exclude the fourth case; we can, therefore, have not the slightest doubt that, in addition to the gray degeneration of the posterior columns of the cord, there is a participation in the process of the anterior horns of the gray matter. This is rather a rare complication of tabes, and while changes in the joints have been frequently observed, such changes in the muscular system are of exceedingly rare occurrence. Only day before yesterday we had the opportunity of observing in this clinic a case of tabes accompanied by *mal perforant du pied*, in which the disease had made a hole through almost the entire thickness of the foot.

The way in which the gray matter becomes affected is still an open question; while Prof. Leyden, of this city, holds that the disease of the anterior horns is merely an extension of the morbid process from the posterior columns, the majority of neuropathologists, Mendel among the number, are of opinion that the two diseases are merely coincident, and stand in no causal relation to each other. Further observation is, therefore, necessary to settle this disputed point. As far, however, as treatment or prognosis goes, it is one of very little import. The affection of the gray matter extends sometimes into the medulla oblongata, producing the symptoms of bulbar paralysis, none of which, however, are present, even in the slightest degree, in our case. Of course, such an eventuality can but hasten the necessarily fatal termination. The treatment, of course, coincides with that of uncomplicated tabes, with the employment of the galvanic and faradic currents, used in accordance with the general rules governing their employment.

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MEDICAL PROGRESS.

COCAINE IN LARYNGEAL TUMORS.—At a recent meeting of the Russian Medical Society, Dr. N. P. Simanovsky made a communication concerning the favorable results obtained by him by the use of cocaine in laryngoscopic practice. Particularly striking results were met with in the excision of laryngeal tumors. In two out of six of these cases, cocaine was not employed, and in each a period of about two months was requisite to prepare the patient for the operation. In the other four cases where cocaine was employed, the operation was performed on the second visit of the patient to the ambulatorium. Afterwards Dr. Simanovsky exhibited several instruments used in laryngoscopic practice, amongst others one invented by himself, and designed for removing laryngeal tumors.—*British Medical Journal*, August 22, 1885.

CHANGES IN THE PORTAL CIRCULATION CONSECUTIVE TO INTRAHEPATIC ALTERATIONS IN THE BILIARY CIRCULATION.—E. MARAGLIANO, in *La Salute*, f. 3 and 4, 1885, after a clinical study of the results of changes in the intrahepatic biliary circulation as related to changes in the portal circulation, gives the following résumé of his conclusions:

1. Turgidity of the intrahepatic biliary vessels may, by its mechanical effect, arrest the discharge of the blood from the portal hepatic vessels.

2. As a consequence of this impediment to the portal circulation, congestive phenomena in the vessels of the lesser circulation may result, as also tumors of the spleen and even ascites.

3. In catarrhal icterus and in the icterus of biliary retention, and especially in the hypertrophic form of interstitial hepatitis, tumors may result as a sequence of mechanical relation between the biliary and the portal circulations.

If these clinical conclusions do not seem to be confirmed from experiments upon animals, the reason is that the effects of disturbance of the portal circulation in a determined vascular zone are not constant, and also because comparative anatomy shows that in the animal scale there exists great variation in the portal circulation both in reference to its direct relation with the circulation of the cava, independent of the hepatic veins, and in its relation with their various radicles.—*Rivista Internazionale di Medicina e Chirurgia*, May and June, 1885.

SUCCESSFUL OPERATION IN TUBAL PREGNANCY.—DR. F. WESTERMARK describes, in a Swedish medical journal, a case of tubal pregnancy upon which he operated successfully. The age of the patient was 23. She began to menstruate at 12, and always suffered a good deal at the periods. Sometimes she ceased for several months at a time, and for this amenorrhœa she attended the Serafimerlasarettets Polyclinic in 1882. A cure was effected, and she became quite regular. In September, 1883, she was married; she menstruated regularly till December, 1884, when she ceased. In February, 1885, the breasts began to swell, and she believed herself to be pregnant. On the 11th of March there was slight hemorrhage, which recurred three times in a week. On the 19th she had some pain and hemorrhage; thinking she was about to abort, she sent for a midwife. On the 25th Dr. Westermark saw her and found the cervix closed, the uterus enlarged and retroverted; to the left was an elastic tumor about the size of a small fist. The patient being unable to micturate, a catheter was passed and the uterus replaced. She continued in a satisfactory condition for three days, when she was seized with diarrhœa, vomiting, and pain. The next day she was nearly collapsed; she was again catheterized and the uterus replaced. Shortly afterwards a complete cast of the uterus came away. Her condition appearing serious, and being in poor circumstances, she was admitted into the Maria Hospital on April 8th. It was noticed that there was no tenderness on palpation. Above Poupart's ligament a tumor about four-fifths of an inch in diameter was felt. The uterus was enlarged, movable, anteflexed, and displaced to the right, the os being closed. The tumor could be felt to be distinct from the uterus, and was about the size of a goose's egg; it was soft, elastic, smooth, and did not fluctuate. A placental souffle was heard over the tumor. On the opposite side no corresponding sound could be detected. The lungs were healthy; there was an anæmic cardiac murmur; the urine contained some albumen, but no casts; the temperature was normal, and the pulse from 80 to 90. The next day there was some hemorrhage, and on the 15th a recurrence of pain. On April 19th the abdomen was opened under antiseptic precautions. In the peritoneal cavity a quantity of bloody serum and some firm clots were found; the cavity was carefully sponged out, The viscera and serous membrane appeared much injected. The right ovary and Fallopian tube were healthy; the uterus enlarged and soft. To the left lay a tumor the size of a goose's egg, in appearance very like an incarcerated hernia; immediately below, and to the outer side, lay the left ovary. The tumor was soft and very elastic; there were adhesions externally. When pricked with a needle, some bloody serum exuded. It was then ligatured and removed, and the abdomen sponged out with boracic solution and closed with deep and superficial sutures, the wound being dressed with corrosive sublimate gauze. The patient did well. The tumor was egg-shaped, having at one end the cut Fallopian tube, and at the other the fimbriated extremity. No trace of umbilical cord or embryo was discovered in the cavity of the tumor or in that of the abdomen, but traces of chorion and placental tissue were found in the tumor.—*The Lancet*, August 15, 1885.

THE NATURE OF THE SECRETION OF THE FEMALE GENITAL ORGANS.—DR. MÉNIÈRE, in the *Journal des Connaissances Médicale*, at the conclusion of a memoir concerning the nature of the secretions of the female genital organs, makes the following résumé:

1. The secretions of the human organism are, as a rule, alkaline.

2. Those of woman are less alkaline than those of man.

3. The vulvo-vaginal mucus tends to become more acid as the constitution is weak, or when it is produced as a result of morbid processes.

The uterine mucous secretion under the same condition becomes more alkaline. The state of health, therefore, corresponds with a slight acidity of the vulvo-

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vaginal secretions (with the exception of the glands of Bartholini), and with a moderate alkalinity of the uterine mucus.

4. The changes of composition are proved by clinical facts, chemical analysis, microscopical examination, and particularly by the cure of sterility from certain thermal causes.

5. To changes of composition correspond hypersecretion, a composition immediately different, and the appearance of microörganisms; moreover, the uterine mucous membrane constitutes a region in which parasites neither animal nor vegetable can ever be found.

6. Notwithstanding the variations in composition, the mucus secreted by the muciparous follicles and the vaginal mucous membrane always maintains an acid reaction.

7. The mucus secreted by the follicles of the cervical and corporeal cavities, and finally that of the vulvo-vaginal glands remain invariably alkaline.—*Revue de Thérapeutique*, August 1, 1885.

STROPHANTHUS.—DR. FRASER, Professor of Materia Medica in the University of Edinburgh, is about to publish the result of his researches on the physiological action and therapeutic uses of the "kombé arrow poison" (Strophanthus hispidus), a subject which has engaged his attention for nearly fifteen years. The plant is a woody climber, growing freely in the forests, both of the mountains and valleys of many parts of Central Africa. In the Mangana country, near the Zambesi, it is known as kombé, but in the Gaboon district it is called "inée," "onaye," or "onage." It climbs the highest trees, hanging from branch to branch in graceful festoons like a wood-vine. Its flowers are pale yellow, and last only a very short time during the weeks which immediately precede the rainy season. The fruit ripens in June, and is collected by the natives with much care and many mystic ceremonies. From the seeds is extracted a juice in which are dipped the points of the arrows for shooting wild animals. Dr. Livingstone, in his well-known narrative of the expedition to the Zambesi, refers to its employment in this way, and says that the poison is so deadly that a beast, on being struck, at once falls to the ground paralyzed. The follicles, specimens of which we have examined, are about a foot in length, and contain from 150 to 200 seeds, each bearing a beautiful delicate plumose appendage mounted on the extremity of a thread-like stalk some three or four inches long. From the seeds, Dr. Fraser has succeeded in extracting a principle of very great activity which he has named "strophanthin." When examined under the microscope, it is seen to be composed of myriads of delicate interwoven crystals of all shapes and sizes. Injected under the skin of a frog, it arrests the action of the heart, causing complete stoppage of that organ, the ventricle being found pale and contracted, whilst the auricles are dark and distended. There seems to be little doubt that it acts directly on the cardiac muscular fibre. In physiological action it is allied to digitaline, the active principle of the common foxglove, although it exceeds it in activity, and differs from it in many important particulars. It is probable, too, that it is related to antiarin, the poisonous principle of the deadly upas tree of Java. We believe that Professor Fraser has succeeded in laying down definite rules for its administration in various forms of heart disease, and it is likely that it will be extensively employed. It must be satisfactory to him to reflect that he has been enabled to add to our list of remedies an agent which hitherto has been employed only as an instrument of destruction.—*The Lancet*, August 15, 1885.

INTRA-PARENCHYMATOUS INJECTIONS IN PULMONARY TUBERCULOSIS.—H. TRUC, in the *Lyons Méd.*, May 3, 1885, after a number of preliminary experiments upon dogs, reaches the following conclusions:

1. Intra-parenchymatous injections of alcohol and creasote into the tuberculous lungs at a distance from the hilus, through the first two intercostal spaces, have had no other unfavorable effect than to produce pain, not constant however, and sometimes a slight elevation of temperature.

2. In no case did the inflammation produced by the injection seem to determine caseation, or to have an unfavorable result upon the progress of the tuberculosis, even when made when the lesions were far advanced.

3. The absence of satisfactory results in this last condition induces us to abstain from injections into the lungs in which the lesions are extended.

4. Creasotized injections in some subjects with lesions but little advanced, have been followed by a slight subjective and objective improvement.—*Revue des Sciences Médicales*, July, 1885.

SCARLATINIFORM RASH PRODUCED BY INTESTINAL ABSORPTION OF PTOMAINES.—A patient observed by MM. Lépine and Mollière (*Journ. de Méd. et de Chir. Prat.*, 1884) presented at first nothing abnormal except an artificial anus, the consequence of a strangulated hernia. One day he was suddenly seized with violent delirium, and M. Mollière noticed a considerable dilatation of the pupils. The skin was covered with a scarlatiniform rash, but there was neither fever nor angina. Poisoning by belladonna was at first suspected, but after a careful examination M. Lépine came to the conclusion that the symptoms were due to the absorption by the intestines of ptomaine, acting like atropine, and probably similar to that obtained by Zuelzer and Sonnenschein from putrid substances. After a short time, acute conjunctivitis and fever supervened, and the patient died. At the post-mortem examination a highly offensive substance was found in the intestine below the artificial anus, so that the possibility of an acute auto-intoxication cannot be disputed.—*British Medical Journal*, August 22, 1885.

AMPUTATION OF AN INVERTED UTERUS.—DR. A. GRENANDER publishes in the Swedish medical journal *Hygeia* a case of polypus uteri with inversion, in which the organ was successfully amputated. The woman was 58 years of age, had had six children, and had ceased to menstruate about seven years, when she began to suffer from hemorrhage, and after a time from an offensive discharge, for which she consulted the author, who, on examination, found the os patent and a large soft tumor occupying the uterus, which was about the size of a fœtal head at term. He advised the woman to go to a hospital, but she did not do so. Seven months later she was obliged repeatedly to send for a midwife to catheterize her. Suddenly, a few weeks afterwards,

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a tumor protruded from the vulva and bled profusely. The midwife diagnosed a polypus, and endeavored to remove it by traction. This proceeding produced so much pain that the patient begged her to desist and to send for Dr. Grenander, who, when he came, found that the tumor, which was the size of two fists, consisted of the inverted uterus and a large polypus attached loosely to it, so that he was able easily to separate them. He then attempted to replace the uterus, but, finding that impossible, ligatured the vagina, which was also partially inverted, and a week later, with the assistance of Dr. Söderström, excised the uterus with a Paquelin's knife at the level of the os internum. Antiseptic dressings were employed. There was but little pain, though no chloroform was administered. Some hemorrhage occurred, and an additional ligature was required. No signs of peritoneal irritation followed, and in eight days the stump had returned to its normal position, being a finger's length from the vaginal orifice. For the first few days the precaution was taken of drawing off the water regularly in order to prevent the wounded surface or the dressings from contact with it. With the exception of some pain of a neuralgic character, which was rapidly controlled by morphia suppositories, no untoward symptoms occurred, and the patient made an excellent recovery. Examination of the amputated uterus showed that it could not have been replaced without damage to its structure.—*The Lancet*, August 22, 1885.

TREATMENT OF ACUTE RHEUMATISM.—At the annual meeting of the British Medical Association, DR. PAVY, in discussing the treatment of acute rheumatism, said that this was one of those subjects upon which the hospital physician might specially feel himself entitled to speak. He had formed a very strong opinion with regard to the salicylate treatment. His experience now contrasted in the strongest possible manner with his experience before the treatment was introduced. Students of the present day had no opportunity of seeing in the wards the disease run its natural course, with all its urgency and severity of symptoms, as they had formerly, when it might be said there was no treatment known that produced any decided impression upon it. To use the salicylate treatment to effect, the agent must be given largely. The usual plan at Guy's Hospital was to give twenty grains of salicylate of soda every two hours for the first twenty-four, thirty-six, or forty-eight hours. By this time the pain was generally removed from the joints, and the temperature brought down, and the patient altogether placed in an easy condition. The frequency of the dose might then be reduced to every three hours, and later to every four and six hours. What he considered of the greatest importance was that, notwithstanding the complete subsidence of the disease, the treatment in a case that was severe should be continued for at least twelve or fourteen days. He sometimes met with a certain amount of discontent in having this carried out. The patient often could not be brought to understand the necessity of being kept in bed, and upon the milk and farinaceous diet to which he was restricted for at least [illegible] time named, and would press for the restrictions [illegible]ed to be removed. His experience led him to c[illegible]e fa[illegible]e that the salicylate treatment, in subduing the [illegible]d fro[illegible]ms as it did, simply controlled the manifestation[illegible] cont[illegible]e disease, without absolutely removing or eradicating that which gave rise to the manifestations. Time was required for this to subside; and if, during this time, the treatment, or that which kept the condition under control was removed, immediately it manifested itself by a return of the symptoms. This was the view that forced itself upon him from what he had seen. It accounted for many of the relapses that occurred, and explained the necessity of keeping the patient under treatment for a definite time, however speedily the disease might appear to have yielded. The treatment did not influence the complication as it did the disease itself. With the disease subdued at once by this treatment, the complications were not likely to arise as under other circumstances; but, if a patient were admitted with pericarditis or endocarditis, this was not influenced in any marked manner by the treatment. Hyperpyrexia was not controlled by the treatment; if it were, the management of this grave condition would be much more easy than it was. The more acute and general the case of rheumatism, the better he considered it adapted for the salicylate treatment. Indeed, in chronic or subacute cases, or where only one or two joints were attacked, he had not found any decided benefit derivable from it. Sometimes the salicylate produced toxic effects, which constituted a barrier to its further administration to the extent required. Directly these toxic effects showed themselves, his plan was to take off the salicylate and administer salicine in a similar dose This, he found, answered what was wanted. He did not begin with salicine in the first instance, as, rightly or wrongly, he was under the impression that the salicylate was the more powerful antirheumatic agent of the two.—*British Medical Journal*, August 22, 1885.

CORROSIVE SUBLIMATE IN OPHTHALMIC PRACTICE.—DR. BELOV, writing in a Russian ophthalmic journal, gives his experience of corrosive sublimate in the treatment of inflammation of the conjunctiva. The cases in which he used it numbered 65, and were made up as follows: 26 of catarrhal conjunctivitis, 19 of the phlyctenulous variety, 2 of the croupous, 2 of the blenorrhagic, and 16 of the granular. The conclusions to which he was led were: 1. Under the use of an extremely weak solution of corrosive sublimate as a spray, inflammatory secretion quickly diminishes, and in a short time disappears. In acute cases the inflammatory infiltration quickly decreases, and in chronic cases there is also a diminution of the infiltration, which, though less marked than in acute cases, is more rapid than when nitrate of silver is used. 2. Phlyctenæ, which quickly disappear when calomel is used, are also rapidly cured by corrosive sublimate. 3. Trachoma complicated with acute or chronic inflammation, in addition to the cure of the latter, shows a diminution in the number of the granulations. 4. In all acute inflammations where nitrate of silver is contraindicated, instead of employing cold and leeches, a weak solution of corrosive sublimate can be used, not only in the form of drops and collyrium, but in extreme cases as a wash applied with a syringe. 5. In chronic inflammations and in the second stage of blenorrhœa a combination of nitrate of silver and corrosive sublimate in solution gives better results than the silver alone. 6. Good results may be anticipated from the use of a weak solution of corrosive sublimate in the

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form of spray as a prophylactic against ophthalmia neonatorum. The author makes the applications from two to eight times a day, continuing them for half a minute to a minute at a time, according to the quantity and nature of the secretion. The atomizer is always held close to the eye in order that the spray may be blown in with sufficient force to remove the secretion quickly and thoroughly. In all cases the lower eyelid is first turned out and then the upper, each being sprayed separately; in this way the eye is kept open so that the whole surface of the conjunctiva is exposed to the action of the atomized fluid. In cases of phlyctenæ the spray is used with the lower lid slightly drawn out, the upper lid being at the same time held back. The author particularly recommends the sublimate treatment in cases where nitrate of silver is unsatisfactory—*e. g.*, chronic conjunctival catarrh and conjunctivitis in scorbutic subjects, and where complicated with inflammation of the cornea. He considers the use in ophthalmic practice of a solution of the strength of 1 to 20,000 or 1 to 10,000 quite safe.—*The Lancet*, August 15, 1885.

THE REMOVAL OF TUMORS OF THE ABDOMINAL WALL WITH THEIR PERITONEUM.—DR. M. SANGER, of Leipzig, contributes to the *Archiv für Gynäkologie* (Band XXIV. Heft 1) an interesting paper on this subject. It deals with the removal of tumors of the belly wall so closely and extensively applied to the peritoneum that this membrane can only be preserved uninjured by a difficult dissection, after which a large thin sheet of peritoneum, free from its main vascular connections, will be left. In such circumstances some operators have adopted the easier course of cutting away the tumor with its peritoneal covering, and taken great pains to bring together the edges of the peritoneal wound, leaving the skin which covered the tumor as a large loose bag over the stitched-up incision. Others have filled up the gap by stitching omentum into the wound, without great success. Sänger here publishes a case in which he simply stitched together the margins of the incision through the skin and muscles, leaving the large surface from which the tumor had been removed uncovered with peritoneum; so that after closure of the wound a great part of the anterior abdominal wall was left bare of peritoneum Three similar cases have been published before, one by Esmarch, two by Sklifossowsky. All four were successful. In only one of them (Esmarch's) was drainage employed. In order to determine the behavior of the parts affected when this course had been adopted, Dr. Sänger has made experiments upon animals, and he finds that just as after a destruction of skin, healing takes place, and fresh epidermis is formed, so after removal of part of the peritoneum new endothelium is produced. The paper concludes with a general survey of all the cases of tumor of the abdominal wall known to the author.—*Medical Times* (London), August 22, 1885.

COCAINE IN GYNECOLOGY.—The French and Italians allege that they have met with brilliant success in the employment of cocaine for the alleviation of pain in diseases of, or operation on, the female pelvic or external organs. Dr. Dujardin-Beaumetz has described a case of vaginismus which followed lingering labor with retained placenta. Dyspareunia lasted for two years, and the vaginismus was not relieved by forcible dilatation of the sphincter vaginæ under chloroform. The inner surface of the nymphæ and the entrance of the vagina were painted four times with a 2 per cent. solution of hydrochlorate of cocaine. After the fourth application, digital examination or the introduction of the speculum caused no pain or muscular contraction; and a cord-like band, that had previously been felt under the vaginal mucous membrane, had disappeared. Dr. Rusconi has used cocaine freely in the gynecological wards of the Ospitale Maggiore, Milan, generally painting a 2 per cent. solution on the surface of erosions of the cervix before applying nitrate of silver. This greatly alleviated the pain generally caused by caustics. In a case of advanced cancer of the cervix, he applied a plug soaked in three grammes of a solution of 20 centigrammes of hydrochlorate of cocaine in 25 grammes of water. The pain was relieved in a minute, and disappeared in ten, beginning again in an hour and a half. It was found necessary, as might have been expected, to press the plug firmly against the ulcerated surface, in order to produce the full effect. The radiating lancinating pains were much relieved by painting the greater and lesser labia, the vestibule, and the vaginal orifice, with the same solution. These pains, however, soon returned, long before the parts which had been painted had recovered their sensibility. A 3 per cent. alcoholic solution stopped the pain for about a quarter of an hour, but produced a transitory redness over the vaginal mucous membrane, and a burning sensation. The other solution had made the mucous membrane look pale. Dr. Rusconi found that, in some women, cocaine failed to cause the slightest anæsthesia of the vaginal mucous membrane, although the cornea was rapidly affected in the same subjects. His best results with this new drug followed subcutaneous injection in cases of cancer of the uterus, the pains disappearing in six or seven minutes, and not returning for over two hours. By frequent injections, patients that had entirely lost their appetite began to eat heartily. Simultaneous injection of cocaine and morphia produced even better results. The combination of cocaine with atropia was less satisfactory, and seemed to increase the poisonous properties of the latter alkaloid.—*The British Medical Journal*, August 22, 1885.

THERAPEUTIC USE OF HYDROFLUORIC ACID.—DR. EUGENE CHEVY, in a study of the therapeutic use of hydrofluoric acid, finds that,

1. The vapor of hydrofluoric acid mixed with air does not produce the ill-effects hitherto feared. It may be breathed without inconvenience in the proportion of 1 to 1500.

2. Hydrofluoric acid is an antiseptic and antifermentative substance. In the proportion of 1 to 3000 it is able to arrest fermentation in milk, urine, bouillon, and accomplish their preservation.

3. The therapeutic use of hydrofluoric acid in pulmonary tuberculosis, diphtheria, and in the dressing of wounds, from the results already attained, merits further investigation.

4. The vapor must be employed with great care if the patient is affected with asthma, hemophilia, or emphysema.—*Bulletin Général de Thérapeutique*, August 15, 1885.

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SUPRAPUBIC LITHOTOMY, AND SUTURING THE BLADDER.

WITHIN a year SIR HENRY THOMPSON has operated for the removal of stone in the bladder by the suprapubic operation four times, and each time successfully. This measure of success has led him to make public some strong expressions in regard to the merits of this form of lithotomy. After speaking of the capabilities of lithotrity, in *The Lancet*, for July 25, 1885, he says: "The problem thus left remaining for solution, is, What is the best cutting operation for hard calculi (urates and oxalates) which weigh from about two ounces and upwards, as well as for those not quite so large, which are so peculiar in form (as occasionally, but very rarely, happens) that the lithotrite fails to grasp, or retain them? I think there is no doubt about the answer—viz., that it is the suprapubic, and not the lateral operation." And, again, "Finally, I think I am quite justified in believing that unless the operator has had a large experience of lithotrity (and there are not many of whom this can be affirmed) the high operation would generally be a safer proceeding than crushing for a calculus which is hard and much above an ounce in weight." In the same number of *The Lancet*, Professor Humphrey recalls attention to an operation of this sort which he did in 1848 successfuly, and expresses his surprise that the suprapubic operation has not been more frequently performed.

These testimonials to the present appreciation of the operation of suprapubic lithotomy in England mark a distinct advance in public sentiment there, where hitherto this method has had but the faintest and most qualified acknowledgement, and from Sir Henry Thompson himself, hitherto open contempt. Now, however, that so eminent and so conservative a surgeon has given his sanction to the suprapubic operation, its gold may be said to have received the guinea's stamp, and to be current in all the Queen's dominions.

It is now about ten years since the merits of this, then almost abandoned method, were made the subject of thorough study in this country, and warmly championed upon theoretical grounds, as well as supported by analysis of a very large number of cases. At once it began to be practised with increased frequency in America; then it was taken up with new assurance in Austria; then in Holland; then in Germany, where it has always had some friends; then it had a genuine revival in France, and now it has secured the approval of the highest authority in regard to operations for stone in the bladder in Great Britain.

It would appear, therefore, that the time has passed for arguing about the worthiness of suprapubic lithotomy, as a general method; since the old prejudices have gone down so completely before the arguments used in its support, and the improvements introduced in its technique. It would seem that the future of stone operations remains with Bigelow's operation of litholapaxy and suprapubic lithotomy, and the only questions which have now a living interest with regard to the latter are those which pertain to the proper selection of cases and the manner of performing it. In regard to the selection of cases, it would not be easy to improve on what we have quoted above from Sir Henry Thompson. As to the technique, the plan of forcing the bladder up out of the pelvis by introducing a colpeurynter into the rectum, and distending it with air or water, as was first done by Petersen, of Kiel, appears to be of great value. It may, perhaps, be responsible for the moderate hemorrhage reported in some recent cases, on account of the pressure it effects upon the venous plexuses at the neck of the bladder; but it cannot be doubted that it has contributed much to the ease of performing the operation, and invited men to take it up who otherwise would not have done so.

In regard to after-treatment, the most important question concerns the employment or rejection of suturing the bladder.

This would appear to be no question at all if such brilliant results could be obtained regularly as have been affirmed in a considerable number of cases. Thus Bruns, who was the first surgeon to suture the bladder after lithotomy, secured uninterrupted union of the wound in his first two cases, both being little children. This was in 1857 and 1858. (These operations are often erroneously attributed to Lotzbeck, who simply reported them. They were done in Bruns's clinic. The bladder was sewed up during the Crimean war by Baudens, after the removal of a

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bullet by suprapubic cystotomy; recovery followed. Although this was not a lithotomy, it deserves to be mentioned, as the first case, so far as we know, in which an attempt was made to secure primary union of the bladder after an operation for the removal of a foreign body.) The variety of methods of closing the wound after suprapubic lithotomy is very great, but they may all be divided into those which close the bladder wall independently and those which close this and the wall of the abdomen together. The latter procedure has not been often carried out, although it has sometimes secured a brilliant result. The former has been done a considerable number of times, probably not much less than a hundred. The results have been so far from uniformly successful that it may be seriously questioned whether or not suturing the bladder be a method to be recommended. It will be admitted that this question can only be answered in the affirmative, if theory alone be considered. And, however imperfect may be the success as yet attained by it, the ideal operation of lithotomy must be held to include closing the wound, and securing primary union. This has been done a good many times, and can be done yet more.

But, in the present state of the technique of suprapubic lithotomy, we think it safe to qualify our statement that suturing the bladder is to be regarded as essential to the ideal operation. The ideal operation implies conditions suited to it, and, without going into details, we think it will be acknowledged that such conditions are not found in a considerable number of cases of stone operations. Suturing the bladder is manifestly out of place in cases in which the condition of the bladder is such as to preclude the idea that it can heal up by primary union, or in cases in which free drainage is manifestly a desideratum. Again, it is not suited to cases in which the size, shape, or position of the bladder, or of the neighboring parts is such as to make the procedure very difficult, or to prevent its being accurately—we may say perfectly—carried out. In these cases, certainly, it is far better to treat the wound after suprapubic lithotomy like the wound of perineal lithotomy—that is, to leave it open, and to secure free drainage through it.

For cases in which suturing the bladder is suitable, Znamenski recently proposed to bevel off the internal, mucous edges of the wound, because he believed they got caught and turned in between the united edges when the sutures were tightened, and so prevented union. And Vincent has still more recently suggested bevelling off the external edges of the wound in the bladder, so that, when the stitches are drawn upon, a larger fresh surface shall be brought together, and the chances of union thereby be increased. This idea, which he never put into practice, has been taken up and carried out by GÉZA, of Antal, who reports in *Langenbeck's Archiv*, Bd. xxxii. 2 Heft, 1885, under the title "Eine modificirte Sectio alta," a case of lithotomy and a case of removal of a morbid growth, in both of which he secured primary union by suturing the bladder in this way. The first patient was dismissed, cured, in twelve days, but was really fit to be dismissed in nine days. The second patient made an equally prompt recovery.

The plan of Dr. Géza consists in exposing the bladder by the usual method, after distention of the bladder and the rectum, and then in freshening an elliptical space a little longer than the proposed incision in the bladder and from one to one and a half centimetres in width. This freshening is carried so deep at the line of the proposed incision that there is little left but the mucous membrane of the bladder, which is afterwards incised, and the stone removed. The sutures he uses are of silk, rendered antiseptic with corrosive sublimate; catgut, he believes, gives way too soon. Each stitch is to be applied so as to include all of the bladder wall, except the mucosa. The wound, in Dr. Géza's cases, was covered with Lister's dressing, and a soft catheter left in the urethra.

It is worth while to call attention to this proposition of Dr. Géza, because it is ingenious, and, reasoning from the analogies of operations for vesico-vaginal fistula, its execution may be expected to make the sutures much more reliable than when they were applied in a simpler fashion. It is to be noted, too, that this is a very different thing from the Lembert suture, which is very good in its way, but which seems to offer less hope of prompt union from the apposition of two serous surfaces than this one does from its apposition of two fresh-cut surfaces. In addition to this, the fact that it has already proved so successful in the hands of its proposer is strong recommendation to its further employment.

No study of the plans of suturing the bladder after suprapubic lithotomy would be complete which omitted consideration of an ingenious method used in 1876 by Dr. Starr, of Georgia, his patient recovering in sixteen days. This case was first reported by Dr. Dulles, in an article on suprapubic lithotomy, in the *American Journal of the Medical Sciences* for July, 1877, and again, by the operator, in the *Atlanta Medical and Surgical Journal* for December, 1877. The suture used was of silver wire; it was interrupted; each stitch was passed into the abdominal wall at one side of the wound, and made to include a small portion of the outer layers of the bladder wall; it then passed across the incision and included a similar small portion of the outer layers of the bladder wall on the other side; it then passed up through the abdominal wall to the surface. When drawn tight it slightly inverted the bladder walls, and brought the edges of the abdominal incision

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close together. It is easy to see that this form of suture must tend to prevent burrowing of discharges between the bladder and the parietes of the abdomen, while it gives a good hold to the stitches which close the bladder itself.

The success obtained by Dr. Starr in its use should encourage others to imitate him. Certainly no better result could be asked for than he obtained.

We sincerely hope that American surgeons will not be backward in contributing their share to the solution of the problem as to the best way to conduct this operation. Its present standing is largely due to their courage in defending and practising it at a time when it was held in much lower esteem than it is now; and we believe the genius in dealing with practical questions in medicine and surgery, which has always been conceded to them, cannot fail to prove of great value if applied to the question of the best method of treating the wound after suprapubic lithotomy.

THE MANAGEMENT OF OCCIPITO-POSTERIOR POSITIONS.

Two valuable papers upon occipito-posterior positions have been contributed by American obstetricians within a year. One of these was by DR. SAWYER, and was read before the American Gynecological Society at its Chicago meeting last fall; the other was by DR. RICHARDSON, and was read at the annual meeting of the Massachusetts Medical Society last June. The subject is one of such great importance, for every obstetrician of even moderate experience has met with difficult cases of labor arising from such position, that we believe our readers will be interested in its consideration.

Both Dr. Sawyer and Dr. Richardson very graphically describe the tediousness of the labor in these positions; both dwell upon the errors of diagnosis, and the importance of external examination to avoid them, and to assist the knowledge gained by vaginal touch. Dr. Sawyer has had an extraordinarily large proportion of cases of occipito-posterior positions, one in five; and he has also had an unusual experience in regard to the general failure of external rotation to occur. The mechanism of delivery when the occiput rotates posteriorly is given by him according to the statement usually found in obstetric text-books—that is, the occiput is born first, then deflexion occurs, the nucha pivoting upon the anterior margin of the perineum. If the perineum be torn, the perineal gutter thus shortened or absent, this probably is true. But when the perineum is entire, we are convinced that Tarnier's explanation of the delivery of the head is the correct one. While the occiput moves along the perineum, greatly distending it, the region of the anterior fontanelle and the top of the forehead are the parts which advance first and correspond to the vulval gap; the occiput, in place of disengaging first, at the level of the posterior commissure, with difficulty arrives there when the entire forehead has disengaged in front.

As to interference in occipito-posterior positions, Dr. Sawyer says he entertains no expectation of the occiput turning forward, if at all, before either the woman or fœtus will demand succor. Dr. Richardson has greater faith in nature; he observes that "the great majority of them require no treatment, beyond a careful watching on the part of the attending obstetrician." Dr. Sawyer advises seizing the head with the hand, and making anterior rotation, this movement is assisted in some degree by the application of the other hand to the body of the fœtus through the abdominal wall. Rotation having been accomplished, the labor may be left to nature, or ended with the forceps. In some cases where anterior rotation can be effected neither by nature nor by art, delivery by the forceps with the occiput posterior is necessary; the most important point in such delivery is to use the forceps especially for producing complete flexion. He prefers the left side position for the patient. The use of the hand to cause anterior rotation, of course, is simply repeating the practice of Smellie.

Dr. Richardson says: "The diagnosis of a posterior position of the occiput having been made, the progress of the case should be carefully watched, with a view to an immediate detection of any failure of proper flexion. The posterior fontanelle should always be easily reached, while the lower the head descends the greater the difficulty in touching the anterior fontanelle, on account of the crowding of the frontal end of the head against the symphysis pubis. If at any time during the progress of the case the posterior fontanelle remain stationary while the anterior is becoming more and more easy of access, the attendant is at once conscious of a gradual extension of the head. It is at this time that an intelligent interference with the case can be of the greatest service. The fingers of the right hand, if the occiput be to the mother's right, should be applied to the frontal end of the head, and, during a pain, a firm resistance, not pressure, should be kept up to prevent any further descent, and the actual flexion of the head should be left to the pressure exercised on the occipital end by the force from above occasioned by the uterine contractions."

It will thus be oberved that Dr. Richardson is much more conservative in his practice than Dr. Sawyer, and regards interference as rarely necessary. But we do not accept the explanation given by the former, in the last sentence quoted, as to the descent of the occiput. It is not pressure exerted on the occipital end that causes its descent, but this occurs because the occipital arm of the head lever meets with less resistance than the frontal arm, and therefore descends.

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Dr. Richardson asserts that with the forceps applied, if extension has occurred to any degree, the traction made increases the extension, thus facilitating the change of an occipital into a face presentation. A change into a face presentation is impossible if the head be of normal size. As to the alleged evil from the application of the forceps, we believe that the instrument will be found applied very nearly with the blades parallel to the maximum diameter of the fœtal head, and if traction be made, and no effort at flexing the head be attempted, as advised by Dr. Albert H. Smith and most obstetricians, the head will be delivered as pointed out by Tarnier in the quotation we have given; we know, too, this can be done without tearing the perineum, even in a primipara, if the operator will, or can delay the delivery until dilatation is effected. Our objection to the use of the forceps is, that in the application of the instrument there is danger that an oblique occipito-posterior position will be converted into one directly posterior, the occiput rotating into the sacral cavity, and thus an end be put to all hope of anterior rotation. An early resort to the forceps is therefore to be avoided.

Dr. Richardson states that in several cases he has been able to cause both flexion and descent, and consequent anterior rotation of the head, by applying the forceps with the pelvic curve reversed, that is, with its convexity towards the pubes; the cephalic curve should pass over the ears of the child, and the ends of the blades rest on the occiput. "The flexion is often facilitated by pressing the frontal end of the head up with one hand, while the occiput, held firmly within the blade of the forceps reversed, is drawn downwards with the other." Of course, extraction of the head is not to be made with the forceps thus applied.

We are inclined to look upon this method of using the forceps as probably very good, yet it carries with it some dangers, some of which probably could be avoided were one to use some one of the straight forceps,—Churchill's, for example.

Finally, if the head is to be delivered by forceps, the position having become occipito-sacral, the true mechanism of delivery in such a position is borne in mind, and no effort made to drag out the occiput first, for the success of such effort means a tear of the perineum.

EXTEMPORANEOUS EXAMINATION OF THE MILK OF WET-NURSES.

A READY method of ascertaining the character of human milk has not yet been found, uuless an exception be made in favor of that of DR. PAUL HÉLOT, which we find published in the *Journal d'Accouchements* of August 15.

Hélot's method is based upon the proportion between an equal volume of distilled water and of milk; this proportion is 30 to 35, or more simply 6 to 7, that is, six drops of distilled water are equal to seven of milk. A milk having thirty-seven or even forty, gave a good result, but if it fell below thirty-three drops it possessed neither clinically nor physically the requisite qualities.

The milk is taken from the breast by a Pravaz syringe, the needle being removed, and the extremity carefully wiped; the milk should be taken about the middle of nursing, and that from each breast should be examined. The syringe is held vertically, the piston pushed slowly and gently down so that the milk escapes drop by drop, and the drops counted. Then an equal bulk of distilled water may be introduced into the syringe, and the drops counted, or this may be previously known, and a comparison made so as to learn whether the milk has its normal number of drops.

THE INTERNATIONAL MEDICAL CONGRESS.

THE new Committee met again in New York on the 3d inst. All reporters were sedulously excluded from the gathering, and we are, therefore, unable to present a detailed statement of the proceedings.

There were present, either as members or substitutes, Drs. R. Beverly Cole, of San Francisco, Chairman; J. V. Shoemaker, of Philadelphia, Secretary; W. H. Wathen, of Louisville; J. B. Hamilton, of U. S. Marine-Hospital Service; X. C. Scott, of Cleveland; Robert Battey, of Rome, Ga.; E. T. Upham, of West Randolph, Vt.; Ellsworth Eliot, of New York; J. S. Lynch, of Baltimore; A. Y. P. Garnett, of Washington; A. H. Wilson, of South Boston; Wm. Brodie, of Detroit; G. Baird, of Wheeling; Paul B. Sale, of Aberdeen, Miss.; Wm. Watson, of Dubuque; R. A. Kinloch, of Charleston; N. S. Davis, of Chicago; Wm. Pierson, of Orange, N. J.; Austin Flint, Jr., of New York; J. W. S. Gouley, of New York; R. C. Moore, of Omaha; and W. C. Wile, of Sandy Hook, Conn.

The rule of membership was amended so as to give representation to the general societies representing special departments of medicine. The Executive Committee appointed at Chicago was abolished and a new committee appointed, consisting of the President, the Secretary General, the Treasurer, and the Chairmen of the Sections.

The Committee then proceeded to fill the large number of vacancies occasioned by the declinations to coöperate with them. Dr. Henry I. Bowditch, of Boston, was elected a Vice-President of the Congress; Dr. N. S. Davis, of Chicago, was elected Secretary-General; Dr. William H. Pancoast, of Philadelphia, was elected President of the Section of Anatomy; Dr. E. O. Shakespeare, of Philadelphia, President of the Section of Pathology; and Dr. A.

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B. Arnold, of Baltimore, President of the Section of Medicine.

The Executive Committee was given power to fill all vacancies. Dr. Austin Flint, Jr., was instructed to prepare the report of the Committee to be presented to the American Medical Association, and the Committee adjourned to meet in St. Louis on the Monday evening preceding the next meeting of the American Medical Association.

Without wishing to prejudge the work of the Committee, we cannot refrain from giving voice to the regret that will be universally felt that no effort was made at the meeting to harmonize the grave differences which exist in the profession, and that the expressed views of the European members of the Congress were not deemed of sufficient importance to be accorded consideration.

REVIEWS.

TRANSACTIONS OF THE AMERICAN GYNECOLOGICAL SOCIETY. VOL. IX. FOR THE YEAR 1884. 8vo. pp. 408. New York: D. Appleton & Co., 1885.

OF the special medical societies of our country, there is no one that does itself more credit in its annual volume than the American Gynecological Society, with its fifty-three Fellows; and there is no body of American physicians so well known individually in Europe, by the originality and success of their operations, their contributions to science, and by the frequency of their visits abroad. What names among us are better known abroad, than those of Thomas, Emmet, Barker, Sims, and Battey? Our land is the home of Gynecology. Here ovariotomy had its introduction under McDowell; here anæsthesia, so important to the surgery of women, was discovered, and here the chief improvements in the treatment of vesico-vaginal fistulæ originated under Drs. Sims, Bozeman, and others. Here, also, the Hodge pessary, so highly recommended in England; the Sims speculum, so important in all the surgery of the vagina; the shotted silver suture; the operation of *trachelorrhaphy* by Emmet, and Battey's *oöphorectomy*, were devised. Dr. T. G. Thomas, who revived the operation of laparo-elytrotomy, and Dr. Alex. J. C. Skene, who has saved three women out of four, under it, with three children, are Fellows of this Society. So is also in its honorary list the oldest living ovariotomist, Dr. John L. Atlee, of Lancaster, who followed very early the work of McDowell. Such active, earnest men as these do credit to their country, and it is such that our foreign *confrères* anticipated with pleasure the opportunity of meeting at the International Medical Congress in 1887; men who have made themselves known by their valuable work, and not such who are famous by their schemes to obtain notoriety in ways not always creditable, even if honest and truthful.

The volume under notice contains the monographs of 14 Fellows, and contributions given in discussion by 12 others, making 26 out of the 53, who have been actively engaged in its production. We desire to call special attention to the paper by Dr. J. C. Reeve, of Dayton, Ohio, entitled *Moot Points in regard to Inversion of the Uterus*, as it brings to light the irresponsibilities of the accoucheur in many cases of this accident, which may be valuable testimony in suits for malpractice unjustly brought against physicians. Dr. Reeve shows clearly that inversion may occur as an accident at any period of life—in the young virgin, in the mother, days, weeks, or years after her last labor, and in the multipara, without any special accidental exciting cause, except abdominal pressure acting upon a uterus, softened and relaxed from frequent hemorrhages.

We also call attention to the article of Dr. Paul F. Mundé, on *Interstitial Cervical Fibroids as a Cause of Dystocia, and their Removal by Vaginal Enucleation*, as the plan of removal of such tumors in cases of obstructed labor is one of the means of saving life in desperate conditions of dystocia, otherwise requiring the Cæsarean operation, which, under the circumstances of delay common in such cases, will usually prove fatal, only 3 out of 11 having been saved in the United States. Over a dozen instances of enucleation have been reported, and growths up to 3½ pounds in weight have been removed. When carefully managed, such cases will generally do well, the chief risks being from hemorrhage at the time, or after delivery, and from septicæmia.

Dr. T. G. Thomas reports six additional cases of extra-uterine pregnancy, making twenty-seven which he has had charge of, almost all of them in consultation. He has operated upon a number of patients with the galvanic current, with the effect of destroying the fœtus in the early period, which he now limits to four and a half months. These cases terminated favorably, as did also four others in which he performed secondary laparotomy for the removal of the dead fœtus. He also advises the removal of the living fœtus at maturity, although but two out of seventeen of such operations have not ended fatally, and one of the two children had an encephalocele, of which it soon died. We should like to see Dr. Thomas succeed in such an operation, but even the successes of Jessop, of Leeds, and Martin, of Berlin, are anything but encouraging to an imitator, when he carefully reads over their reports.

We would also call the attention of students of medicine to the paper of Dr. R. Stansbury Sutton, of Pittsburg, on the *Pathology, Diagnosis, and Treatment of Non-malignant Uterine Tumors*, which in seventy pages fully and clearly treats of this class of tumors, and their cure by removal under the knife, the ergotine treatment, and Battey's operation as applied and modified by Mr. Lawson Tait, on February 11, 1872, at the age of twenty-seven. This plan of cure for intramural tumors, known as "Tait's operation," in which the ovaries and Fallopian tubes are exsected, has had very marvellous effects in some cases after almost fatal hemorrhages, of which we are witnesses.

To the gynecological student and accoucheur the volumes of *Transactions* of the American Gynecological Society are of very great value, and we particularly recommend the *discussions* upon the papers, which embody the opinions of a number of Fellows of large experience.

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SOCIETY PROCEEDINGS.

AMERICAN DERMATOLOGICAL ASSOCIATION.

Ninth Annual Meeting, held at the Indian Harbor Hotel, Greenwich, Conn., August 26, 27, and 28, 1885.

(Specially reported for THE MEDICAL NEWS.)

WEDNESDAY, AUGUST 26TH.

(Concluded from p. 279)

EVENING SESSION.

DR. L. A. DUHRING, of Philadelphia, read a paper on

THE RELATION OF HERPES GESTATIONIS AND CERTAIN OTHER FORMS OF DISEASE TO DERMATITIS HERPETIFORMIS.

Attention was briefly directed to the previous article of the reader on dermatitis herpetiformis, and to a paper showing its identity with the impetigo herpetiformis of Hebra; also to a preliminary note on the relation of this disease to herpes gestationis and other similar forms of cutaneous disease, read before the Association at the last meeting.

The object of the present communication was to prove the identity of so-called herpes gestationis with the vesicular variety of dermatitis herpetiformis, and to show that the term herpes gestationis is a misnomer, the affection being found in men as well as in women. Secondly, that certain other so-called forms of herpes, such as "herpes pemphigoides," "herpes vegetans," "herpes pyæmicus," etc., as well as certain cases regarded by the reporters as "peculiar forms of pemphigus," must be viewed as examples of this disease; and, finally, that instances of the same affection are also met with in literature under the title of hydroa, and under divers other captions. Numerous cases from English, French, and German literature were cited. The paper of Dr. Duhring was stated to be looked upon as supplementary to the preliminary note referred to, and embodied the results of considerable research into literature. If the views put forth proved to be correct, a great deal had been gained for dermatology in bringing these peculiar forms of disease together.

DR. WHITE thought that the term dermatitis herpetiformis is a misnomer. The disease should be called dermatitis multiformis. The herpetic element is often wanting.

DR. ROBINSON agreed with Dr. White, that the term dermatitis herpetiformis is too restricted, but he should prefer some term which has no significance until the true nature of the disease is better understood.

DR. HYDE said that there are reasons why he should disagree with the last speaker; the term herpetiformis is preferable, if for no other reason than because it is suggestive.

DR. FOX wished to show here a photograph of a case which might be mistaken for dermatitis herpetiformis, namely, erythema multiforme. This disease should be placed in strong contrast with dermatitis herpetiformis.

DR. DUHRING said that the name dermatatis herpetiformis was adopted because it seemed the least objectionable. The herpetiform character of the disease is to his mind characteristic.

DR. G. H. TILDEN, of Boston, then read a paper on

MYCOSIS FUNGOIDE.

He described the case of a man aged 28 years when he came under observation. Three years before several red, desquamating spots had been observed on the elbows. Several months later erythematous spots accompanied with pruritus were noted. These lesions retained a dry scaly character. There were no vesicles or pustules. At the end of a year, several red nodules appeared on the face and throat; these however disappeared. Later a small papule appeared on the right thigh and increased in size; from this there exuded a thin fluid. This was followed by the development in many parts of the body, particularly the axillæ, groins, and neck, of similar lesions, in some cases reaching the size of a hen's egg. After a time there was superficial erosion of some of the tumors, but these excoriated tumors remained firm in consistence, although some of the masses which were covered with epidermis were soft, but there was no evidence of the formation of pus. There was also indolent enlargement of the lymphatic glands. The general health continued good. The patient passed from observation and died at the end of three years and a half.

The report of the microscopist who examined the tumors was read. His opinion was that the growths were lymphangiomatous in character.

Reference was then made to the literature of the subject and the various cases, some thirty in number, which had been reported, were given, and the symptoms and course of the disease were described.

Sections of the growth were also presented for examination.

DR. WHITE said that this patient was under his care during the last stages of the disease and he presented the changes which have been described. Some of the larger growths disappeared. During the last months of his life the man was taking arsenic. Marasmus developed; death resulting from the occurrence of diarrhœa.

DR. ROHÉ, of Baltimore, said that four years ago he saw a case of what he believes to have been the same affection. The man, 62 years of age, had a multitude of these tumors. Several had been extirpated before he came under his care, but there was recurrence with this fungoid appearance. The man was given arsenic, but he died from exhaustion. No autopsy could be obtained. As far as could be detected, there was no affection of the liver or spleen.

DR. MORISON has seen a similar case which was diagnosticated multiple sarcoma of the skin. It takes the microscope, he said, to settle the question in these cases.

DR. FOX had seen one or two similar cases in New York. Should one come under his care, he would try the effect of chaulmoogra oil; judging from its effect in other diseases, it should be useful.

DR. HARDAWAY said that in a case of alveolar sarcoma which he reported, the disease has existed fifteen years, but the clinical features are about the same as they were years ago. There is marked enlargement of the lymphatic glands. The general condition remains good.

DR. HEITZMANN said that the description of the microscopic appearance is that of a lympho-sarcoma,

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and the examination of the specimens confirms him in this view.

DR. SHERWELL said that to show the amount of involution that may take place, he would refer to a case of melano-sarcoma under his care. The man was treated with arsenic, mercurials, etc. After six months treatment, the tumors have almost entirely disappeared. There was not the slightest evidence of syphilis.

DR. FOX remarked in regard to the use of chaulmoogra oil, that he had seen it used in a case of leprosy. There is now not a trace of leprosy, except the contraction of the fingers, which is however a secondary condition; it has failed in many cases, but there is sufficient to justify a trial of it in the chronic inflammatory affections referred to to-night.

DR. L. N. DENSLOW, of St. Paul, read a paper on

URETHRAL IRRITATION IN THE MALE, AS A CAUSE OF CERTAIN NEUROSES AND OF ACNE.

He prefaced his remarks by a brief review of the cases of contracted meatus reported by Dr. Otis. He then gave an account of a number of cases coming under his observation in which there were reflex conditions associated with such conditions of the urethra as contracted meatus, stricture, and excessive sensitiveness of the prostatic urethra. In these cases removal of the urethral trouble produced an alleviation or cure of the affection to which attention had been directed. He also reported four cases in which the same treatment was followed by marked improvement or cure of the skin disease (acne).

The speaker said that he simply reported the cases as so many observed facts and did not express any theory. He would keep the cases under observation and at a subsequent meeting give a further report.

DR. WHITE asked Dr. Denslow if he had ever used this treatment in females.

DR. DENSLOW said, No. In females in conjunction with external treatment, he depended entirely upon the use of ergotin, six to twelve grains three times daily.

DR. WHITE said in regard to the use of ergot, that he had employed it in obstinate cases, without seeing the least benefit from its use.

DR. TAYLOR protested against the promiscuous cutting of urethras which is so common at present.

DR. SHERWELL believed that acne is largely a reflex disorder, but he is not in the habit of introducing a sound in every case of acne. He gets good results from other measures. He thought that it is valuable in exceptional instances. He strongly believes in the action of ergot in connection with local applications, especially in females.

DR. HYDE said that many of these cases with urethral trouble associated with acne, are patients who probably have been taking for some time balsamic preparations, and as a result they have development of acne. He would suggest to Dr. Denslow that he take this point into consideration.

DR. STELWAGON said that in the past few years he had prescribed ergot for a large number of acne cases, but after a few weeks' administration in many cases, supervening nausea and vertigo compel its discontinuance, nor could he as yet see any positive evidence of its supposed value.

DR. DENSLOW said that in all the cases reported the acne has existed since puberty. The patients were not hypochondriacs and they were not masturbators. He is satisfied that no drugs had been used in any of them.

FRIDAY, AUGUST 28TH.

MORNING SESSION.

DR. C. HEITZMANN, of New York, made some

REMARKS ON ELECTROLYSIS AND OTHER PRACTICAL TOPICS.

He spoke very highly of electrolytic epilation. For this purpose he uses the Leclanché battery. This battery has the advantage of steadiness, absence of pain and of reaction when applied to the face. He employs a needle-handle devised by Leiter, of Vienna. Its special advantage consists in the mechanical arrangement which prevents the needle from penetrating further than the desired depth.

He has had good results from electrolytic destruction of dilated bloodvessels in the face, less satisfactory results in the treatment of port-wine marks, where a permanent cure is only exceptionally attainable. Sodium ethylate is highly recommended by some for the destruction of angioma of the face, but it is in no way superior to nitric acid.

He maintained after observing two hundred cases of falling of the hair, caused by seborrhœa, that the method he recommended in 1876 gave fair results. This is the application of a ten or twenty per cent. ointment of oleum rusci crudum.

For the removal of freckles, the doctor used an ointment recommended to him by Wertheim, of Vienna. The preparation is as follows:

℞.—Hydrarg. ammon. muriat. grammes 3.75.
Magist. bismuthi. . . " 3.5.
Ungt. glycerinæ . . " 30.0—M.

This is to be applied in a thin layer, every other night, and in four to six weeks the result is highly satisfactory. As to the permanency of the cure he was unable to state.

In regard to the reappearance of hair after removal by electrolysis, the speaker considered it to be due to the growth of the fine hairs, whose growth was promoted by the transference to them of the nutrition which should have gone to the hairs removed.

DR. HYDE remarked that Dr. Heitzmann had touched upon the important point in the removal of hair by electrolysis. The question is not what will the result be at present, but what will it be in the future. The electrolysis produces a hyperæmia which tends to stimulate the growth of the remaining hair. He has found the rectified oleum rusci very valuable in certain diseases. He would ask, What is the test for a good crude oil?

DR. FOX said, in regard to the treatment of angioma, that he had used nitric acid, making the application in the form of small dots one-fourth to half an inch apart, with great advantage. In one case, in which a nævus occupied half the face, he used this treatment with much success.

In regard to the return of the hair after electrolysis, if the needle is carefully inserted, and, after the operation, gentle traction is sufficient to remove the hair, that hair will not return. In some cases there is a constant

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increase in the downy hairs from some cause, but these are exceptional cases. He did not think that the removal of hairs increased the growth of others. In one case, that of a young woman with a strong beard, he removed, by actual count, eight thousand hairs. This process required two or three years. Since then it has been necessary to remove only a few dozen hairs.

DR. ROBINSON used a similar ointment for the removal of freckles, but its effect is only temporary. He thinks that the growth of the remaining hairs is increased by the removal of a portion.

DR. WIGGLESWORTH, for the past fifteen years, has used the following ointment, which is almost identical with that mentioned by Dr. Heitzmann:

℞.—Hydrarg. ammon. . . . parts 10
Bismuthi subnitratis . . " 10
Vaseline . . . . . " 100—M.

DR. DUHRING considers the oil of rusci valuable in seborrhœa of the scalp. The objection to it is its disagreeable odor. He has also used in chronic seborrhœa of the scalp a preparation of sulphur with satisfactory results, but he does not consider it as efficacious as tar.

DR. HARDAWAY has performed the operation of electrolysis for ten or twelve years, probably longer than any other member of the Association. He uses the iridoplatinum needle, which has the advantage of being flexible, and, hence, is not likely to pass through the follicle wall. The moment the follicle is entered, there is usually an escape of sebum. One case, that of a woman with a heavy black beard, has been entirely relieved. Electrolysis with a fine needle affords a method of getting rid of freckles. The plan is to dot the needle over the surface covered by the freckle.

DR. HEITZMANN said that the percentage of recurring hairs is greater in some situations than in others. In the submaxillary region, it is greatest. The oil of rusci crudum is better than the rectified oil. To test it, add alcohol to a small portion of the oil and paint it on the skin; if it evaporates quickly, leaving a thick black coating, it is a good crude oil.

DR. R. W. TAYLOR, of New York, read a paper on

SYPHILITIC REINFECTION.

He first referred to the literature of the subject, and gave a brief review of the authentic cases on record, giving the names of the reporters. The number of cases previously reported is between thirty and forty. To these he added the histories of three more. A fourth case has been observed by him, but as the complete history was not prepared, it was not given.

Case I.—A barkeeper, aged 25 years. Was first seen in 1868, suffering with gonorrhœa. Three years previously he had had indolent enlargement of the lymphatic glands in the groins. Examination showed the presence of lymphatic enlargement in certain regions. Inquiry into the history showed the existence of a chancre three years before, which had been slow in healing. About two months later, he became sick, and suffered with a roseolous eruption, sore throat, falling out of the hair, and rheumatic pains, worse at night. Under treatment he improved, but afterwards exhibited a papular eruption. He was then seen by Dr. Van Buren, who pronounced the case one of syphilis, and ordered mercurial treatment. He recovered after two years, but of his own accord continued the treatment two years longer. He then remained well until the attack of gonorrhœa.

In February, 1870, he again appeared, presenting a typical indurated chancre on the cutaneous aspect of the penis. It presented every evidence of a primary infection. Later a papular syphilide appeared over the body. There were several mucous patches on the pillars of the fauces, and the throat was red and swollen. The joints soon became the seat of nocturnal pains. The patient also presented a form of syphilitic epididymitis. Under mercurial treatment there was some improvement, but a year later there were some tertiary manifestations. By 1874 he seemed very well. During the next three years there were no evidences of syphilis, but he continued the mixed treatment.

He was again seen in the fall of 1882, when it was learned that his good health had continued, and that he was the father of a healthy child. The child was examined, and no evidence of hereditary syphilis detected.

Case II.—Had in June, 1873, a typical indurated chancre, followed by distinct secondary symptoms, which disappeared under treatment. He then passed from observation. In February, 1874, he presented several ulcero-tubercular lesions on the outer aspect of the forearm. He then remained under treatment six months. In January, 1875, he had spots of thickening of the periosteum of both tibiæ. He was again treated with benefit.

In June, 1878, there was a typical indurated nodule on the prepuce, from which indurated lymphatics extended to the inguinal lymphatic glands. The incubation of this sore had been about twenty days. This was followed by malaise, sore throat, swelling of the postcervical and epitrochlear glands. Over the trunk and arms there was a fine mottling of light pink color. The patient then went to Europe, and was not seen until March, 1885, when it was learned that the symptoms had been well marked, and that he had been treated for them under several European physicians.

Case III.—Aged 41. Had had a typical indurated chancre in 1874. There had been inguinal adenitis, followed by roseola, falling off of the hair, and later by severe iritis of the right eye. He was treated with mercury.

In February, 1882, he returned with a typical hard chancre. In April he became sick, had rheumatic pains and a mixed eruption of erythematous and papular syphilide. In May, inflammation of the iris of the right eye again appeared. In 1883 he had a late secondary rash.

These cases were reported with the object of throwing some light upon the natural history of secondary infection of syphilis. In all these cases, relapsing indurations were carefully excluded.

DR. HYDE said that in his experience he had had but two cases of reinfection of syphilis, where he was perfectly sure of the fact.

DR. H. W. STELWAGON, of Philadelphia, then made some

OBSERVATIONS ON THE OLEATES.

In regard to the chemistry and preparation of the various oleates, both as to their manufacture by the direct combination of the acid with the base and by

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double decomposition, almost, if not entirely, as much can be found in the English translation of Gmelin's *Handbook of Chemistry*, published 1866, as in the writings of the past several years.

Of all the oleates, those of mercury, zinc, bismuth, and lead only have a place in the treatment of diseases of the skin, and in view of their costliness, the seemingly unavoidable frequency of badly made preparations, the disagreeable oleic acid odor, and the irritation so frequently observed following their use, it is probable that of these four, the mercuric oleate is the only oleate that promises to retain a permanent value. This last is especially valuable in ringworm of the scalp, but for inunctions in the treatment of syphilis it is of doubtful utility, not comparable to blue ointment. Oleate of copper, which has been so highly recommended for ringworm of the scalp, although like all parasiticides, useful in recent cases, is of no value in chronic cases, and is far inferior to oleate of mercury and to tar and sulphur preparations.

DR. TILDEN agreed with Dr. Stelwagon, that oleates are not as useful as the ordinary ointments.

DR. WIGGLESWORTH has practically renounced all oleates except the oleates of zinc, lead, and mercury, the last of which he uses as a parasiticide.

DR. DUHRING said that his experience with these preparations is in accord with that of the reader of the paper. He had employed the oleate of copper in varying strength in thirty or forty cases of ringworm of the scalp, but it seemed to exert no influence whatever. These were, however, obstinate cases. Other methods of treatment were afterwards tried and the cases were finally cured. As to its efficiency in acute forms of ringworm he was not prepared to speak.

DR. HEITZMANN had tried the oleate of copper in chronic cases of ringworm of the scalp without any result, but in the acute cases it cures after a time. Even in such cases, however, it is not as efficient as the preparation recommended by Dr. Taylor—that is, four grains of bichloride of mercury to the ounce of tincture of myrrh or benzoin.

DR. FOX referred to the comparison between oleates and vaseline. It has been claimed that the oleic acid and animal oils are better absorbed than these other preparations. As a matter of experience, he has found that vaseline makes a better base for the majority of ointments than do the animal oils. Has also found vaseline a most soothing application to the skin. He has been disappointed in the oleates.

DR. TAYLOR said that his conclusions in regard to the oleates are in accord with those of the paper. He only uses at present the oleates of mercury and zinc, but he never relies on the oleate of mercury in the inunction treatment of syphilis when blue ointment is obtainable.

DR. HARDAWAY had almost entirely discarded the oleates. In some recent cases of ringworm the oleate of copper has seemed to be successful, but in chronic cases it entirely failed.

DR. ROHÉ said that the oleates in his hands have been unsatisfactory.

DR. STELWAGON had only to add that he had hoped that the claims made for the oleates might have greater foundation in fact, but the more he had used them the less they seemed worthy of confidence.

DR. L. N. DENSLOW, of St. Paul, then reported

A CASE OF SYPHILITIC APHASIA AND PARAPLEGIA, FOLLOWED BY DEATH, WITH AUTOPSY.

His object was simply to put on record a case in which an autopsy was obtained in early syphilitic cephalalgia. The patient was seen in consultation April 20, 1885. Two months previously the patient had begun to suffer with severe headache, worse at night. There was also a papular eruption. He acknowledged the existence of a sore six months previously. Iodide of potassium with chloral had been given. Two weeks later the patient was free from pain, but it returned one month afterwards, when the patient stopped taking medicine. Iodide of potassium was again given with the effect of relieving the pain. Aphasia and paraplegia then developed, and the patient died four days later, and within nine months of the initial lesion.

At the autopsy, the dura mater, along the superior longitudinal sinus, was thickened and adherent. There were numerous small gummata in the pia mater, situated along the right border of the longitudinal sinus, and extending back to the fissure of Sylvius. The pia mater exhibited the evidences of simple acute inflammation.

CANADA MEDICAL ASSOCIATION.

Eighteenth Annual Meeting, held at Chatham, September 2 and 3, 1885.

THE PRESIDENT, WILLIAM OSLER, M.D., IN THE CHAIR.

(Specially reported for THE MEDICAL NEWS.)

SURGICAL SECTION.

DR. CARSTENS, of Detroit, read a paper on

TWO CASES OF REMOVAL OF UTERINE FIBROIDS.

The first case was that of a woman aged 40, in whom uterine fibroid was diagnosticated within the broad ligament, and abdominal section determined on. The operation was performed with strict antiseptic precautions. On opening the abdomen, a large tumor was discovered within the broad ligament of right side and one small one. The ovaries were very adherent and were removed. The pedicles were ligatured and the tumors taken away. There was considerable hemorrhage, and some twenty vessels had to be tied with silk and catgut. The patient for the first few days had considerable vomiting. On the fourth day she asked for lager beer, which was given, and had the effect of controlling the vomiting. The temperature up to eleventh day never reached 100° F., but then rose to 102°. This elevation was caused by a small abscess, which formed in the corner of one of the ligatures. The patient did well after this, and was discharged, cured, five weeks after the operation.

The second case was that of a married woman, aged 45, who had had enlargement of the abdomen for several years, with repeated uterine hemorrhages. Dr. Carstens, on examination, found a submucous fibroid. She was dilated with great difficulty, so a posterior incision had to be made. The tumor was enucleated and removed with an écraseur, and the wound in the cervix sewed up with silk ligatures. The patient was able to sit up in six days.

Some remarks were made on the cases narrated, in which the reader of the paper strongly insisted on the necessity of an abdominal section in many of these

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cases, and said that, until the abdomen is opened, it is impossible to tell what may be the character of the operation it is necessary to perform.

In the discussion which followed, DR. GARDNER, of Montreal, said that, in incising the cervix, he preferred the bilateral incision to the posterior, and that in the cases performed by him he has avoided sewing up the wounds thus made. After removal of the tumor, he is in the habit of irrigating the uterus with two tubes, which are kept in position by stitching to the cervix. He washes out the uterus through these tubes every two hours. In certain cases he is in favor of removing the ovaries, but not in all, as in those of Mr. Lawson Tait.

DR. CARSTENS, in reply, said that section of the cervix is seldom necessary, as it can generally be sufficiently dilated to remove any ordinary tumor, and he has made a posterior incision only because it was most convenient in that particular case. If abdominal section was performed for uterine fibroid, he preferred excision of the tumor to removal of the ovaries and appendages, as by the latter method the growth of the tumor is frequently not arrested. He strongly insisted on the necessity of folding in the peritoneum after the excision of the tumor, as by this means blood is prevented from entering into the peritoneal cavity.

DR. FULTON, of Toronto, then read a paper on

SUBPERIOSTEAL AMPUTATION.

This method of operating was advocated by Walthier seventy years ago; in 1859 it was advised by Ollier, of Lyons; and lately many surgeons have recommended it. Dr. Fulton has performed many amputations recently by this method, and is strongly in favor of it, especially in amputations for diseased bones and joints. After carefully describing the operation, Dr. Fulton mentioned its advantages, the chief of which is that the cut cord of the bone is brought into contact with the tissue most suited to it; also the bone does not become adherent to the end of the stump, and the medullary canal is closed by new bone. The operation is especially suitable in cases where the contents of the medullary canal are soft and in an unhealthy condition. The only objection is the possibly too great development of osseous tissue about the end of the bone. The reader of the paper, however, had never seen any osteophytes result from the operation. Cases were related showing the advantages of the operation.

DR. MCGRAW, of Detroit, remarked that Langenbeck had performed subperitoneal amputation in 1862; but, as the case did not turn out very well, he did not continue to adopt this procedure in his amputations. Dr. McGraw believed that it is most important in amputations to draw together similar tissues, and he always sews periosteum to periosteum, muscle to muscle. In this way the wound is completely closed and no cavity left. He strongly approved of the subperiosteal method of amputating.

DR. DONALD MACLEAN, of Detroit, said that many of the so-called advances of modern surgery are of very questionable benefit, but the one recommended by the reader of the paper seemed to have much to recommend it. It is the duty of the surgeon to pay more attention to the details, not only of the operation, but of the after-treatment, and to make the path of the surgical patient as smooth as possible by doing everything to avoid unpleasant after-results.

DR. DAVIDSON, of Toronto, thought the operation should be more practised than it now is. He thought that in performing the operation the periosteum should be reflected back before the bone is cut, thus necessitating only one division of the bone. The recurrence of osteophytes is certainly an objection to the operation.

DR. SAMPSON, of Blenheim, Ont., said that country doctors are not always able to carry out all the minute details of modern surgery, and yet got very good results. He mentioned a case in which he had lately amputated the thigh, and the patient was going about on crutches within three weeks.

DR. SHEPHERD, of Montreal, said that in his experience the results obtained in amputations performed with periosteal flaps are no better than in those performed without them; that if amputation be done with proper antiseptic precautions, union occurs by first intention, and the result is that the skin is freely movable over the end of the bone. In the last twenty major amputations he had performed, only one did not unite completely by first intention. He thought that the suturing of muscle to muscle, as recommended by Dr. McGraw, is not necessary, as the same result can be obtained by dressing the stump with pads of jute, or some other elastic substance, and keeping them in place with an evenly and firmly applied gauze bandage.

DR. SHEPHERD, of Montreal, read a paper on

EXCISION OF THE TONGUE BY SCISSORS, WITH PRELIMINARY LIGATURE OF THE LINGUAL ARTERIES.

He said that in excising the tongue for malignant disease, besides the necessity for avoiding hemorrhage, it is important that structures in the neighborhood which had become involved should be removed, and he held that the operation of excision of the tongue with preliminary ligature of the linguals facilitates the removal without adding much to the risk of the operation. Whatever operation for excision of the tongue is practised, the mortality in a given number of cases is about the same, and the method of operating seems to have less effect on the results than the after-treatment. Still, certain operations are more favorable than others as regards the recurrence of the disease, as the more completely the disease is removed the less likely is it to return. He considered that in excision of the tongue it is as important to excise diseased glands in the neck as it is to remove diseased axillary glands in extirpation of the breast. The operation was described, and the difficulties met with in ligaturing the linguals especially dwelt on. The advantages of the operation are that (1) the diseased structures, and especially the glands, are easily discovered and removed through the incisions made for ligaturing the arteries.

(2) The removal of the tongue is bloodless, and there is little fear of secondary hemorrhage.

(3) Drainage of the mouth can be more thoroughly carried out by means of the incisions in the neck.

(4) The operation is performed with few instruments, and only those possessed by every surgeon.

(5) The tongue is more completely removed by scis-

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sors than in any other way, and the tissue is not bruised as when the écraseur is used.

Dr. Shepherd related three cases of malignant disease of the tongue with involvement of the glands of the neck (and in one case of the right tonsil), in which he had performed this operation. The after-treatment is important, and Billroth's method of stuffing the mouth with iodoform-gauze was strongly advocated by the reader of the paper.

DR. MACLEAN, of Detroit, said that in certain cases the operation described by Dr. Shepherd was the proper one, but when there is no involvement of the glands of the neck he prefers removing the tongue with the écraseur. The great danger of all the operations for the removal of the tongue is septic disease of the lungs.

DR. GRANT, of Ottawa, had listened to the paper with great interest, and intended, when a proper case presented itself, to practise the operation. He related a case of deep-seated abscess of the tongue which had lately been sent to him as one of malignant disease.

DR. ATHERTON, of Toronto, did not think ligature of the lingual is a very simple operation. He advocated the performance of preliminary tracheotomy in excision of the tongue, as by this means the wound is kept aseptic and septic involvement of the lungs prevented. There is also less fear of hemorrhage, and greater facility in arresting it.

DR. SHEPHERD, in reply, said that he doubted whether diseased glands in the neck could be always discovered by external manipulation, and that only in cases seen very early should the neck incisions be omitted. He could not help thinking that preliminary tracheotomy added to the risk of the operation, and, besides, it is not necessary if the after-treatment with iodoform-gauze be carried out in the way recommended by Prof. Billroth, who has had no deaths or serious complications in his last seventeen cases.

DR. WM. GARDNER, of Montreal, now read the report of a case of

DOUBLE UTERUS WITH ATRESIA AND HÆMATOMETRA OF THE LEFT CHAMBER.

The patient, a tall, slim, unhealthy looking maiden, æt. 18, was admitted to the gynecological service of the Montreal General Hospital with a history of intense periodic pain in the loins, hips, and hypogastrium. She had always been healthy till two years previous, when she began to grow rapidly and to menstruate. Catamenia always scanty; one napkin; intervals three to six week. The flow attended with moderate pain. Nine months previous to entering the hospital she began to suffer from the pains described. The pain came on each afternoon or evening, and lasted several hours, with an interval of complete relief. Had noticed for some time a swelling of the lower part of the abdomen. No bladder symptoms; appetite small; no vomiting; constipation troublesome. On palpation of abdomen there is an elongated, smooth, very firm tumor extending from the left anterior superior spine of ilium to pubes. Two smaller projections attached to the larger one extend towards the right side of the pelvis. Patient etherized for vaginal and rectal examination. Hymen entire, but perforate. Immediately on entering the vagina the finger meets a very firm, smooth, at one point slightly elastic, mass, evidently the lower part of the hypogastric tumor described. On the left side the vaginal wall is pushed down by the tumor to near the orifice. On the right side and behind the finger can be swept around the tumor to the upper part of the pelvis. No trace of vaginal portion to be detected. The only evidence of an opening is a slight linear furrow. An aspirator trocar was introduced, when a small quantity of thick chocolate-colored blood escaped, thus clearing up the diagnosis. A bistoury was introduced and a free incision made. Fifty fluid-ounces of thick, tarry blood escaped. After partial emptying of the sac it was easy to feel the os uteri of the left patent chamber of the uterus. Double drainage-tubes were inserted within the opening and stitched to the edges, the ends protruding from the vagina. Irrigation every two hours with weak carbolized fluid was ordered. Within the first twenty-four hours the temperature ran up to 103°, but at the end of another day became normal. Very little pain. Patient did perfectly well for a week, but on the eighth day the tubes ulcerated out. Within twenty-four hours the temperature slowly rose to 101°. The patient was again etherized, a portion of the wall of the sac excised, the tubes again inserted, and irrigation resumed. But the temperature and pulse continued to rise. Three days later there was a rigor, followed by profuse sweating; then increase of pain, abdominal distension, left infra-mammary pain, and pleuritic friction; vomiting, at first of mucus, then of coffee ground-like fluid; death nineteen days after operation.

At the autopsy general recent peritonitis with profuse exudation of lymph. Bicornate uterus: left chamber measures one and three-quarters inches; the interior of the right chamber contained the thick menstrual blood-stained brown fluid. Right ovary somewhat enlarged, otherwise healthy. Left Fallopian sacculated, the sacculi containing the same tarry fluid. A sacculated similar collection of the size of an orange, the walls of the sac being formed by the fimbriated extremity of the tube, the broad ligament, and false membrane. Other smaller hæmatoceles were found about the left broad ligament and left border of the uterus. The left ovary could not be distinguished.

DR. GARDNER remarked upon the great rarity of the case. Professor Olshausen, of Halle; Dr. Galabin, of London; and Dr. John Homans, of Boston, had, however, reported exactly similar cases. The prognosis in all such malformations is grave. The treatment, so far as it went, he believed to be the best that could have been adopted, but he regretted that when the condition of the patient became so desperate, he had not opened the abdominal cavity, removed the left Fallopian tube and ovary, opened the other hæmatocele collection, and drained the abdominal cavity. In view of certain recently published remarkable cases of acute and chronic peritonitis, similarly treated with success, he believed it possible that the patient might thus have been saved. Olshausen's case was treated by three successive tappings of the tumor through the vagina. Mild peritonitis resulted, but the patient recovered perfectly, and subsequently married and bore three children.

In Dr. Homans's case, there being doubt as to the nature of the tumor, he opened the belly, clamped and removed the closed uterine chambers containing the altered blood, together with a diseased and distended

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Fallopian tube and ovary, and introduced a drain. The patient recovered. Dr. Galabin's case was treated similarly to Dr. Gardner's, but less efficiently on account of the intractability of the patient and her friends. She died within a fortnight.

DR. ROSWELL PARK, of Buffalo, reported a successful case of

EXTIRPATION OF THE LARYNX FOR MALIGNANT DISEASE,

and exhibited the specimen, as well as a model, of an artificial larynx after Gussenbauer's pattern. The case was that of a man, aged 64, who for many years had been troubled with hoarseness. For a year past he had lost his voice altogether; last fall consulted a specialist, who diagnosticated papillomatous disease of the larynx undergoing cancerous degeneration. Had previously underwent several operations for removal of the papillomatous growths. He was seen by Dr. Park on the 14th of last June, and at that time tracheotomy was performed to relieve the difficulty of breathing. After some days the granulation tissue about the tracheotomy wound was so exuberant that it forced out the tube, so extirpation of the whole larynx was advised and agreed to by the patient. The operation was performed on the 28th of last June. It was very tedious, but attended with but little hemorrhage. The epiglottis was left behind, and the first ring of the trachea removed with the larynx. The wound was packed with iodoform gauze and healed rapidly. The patient was fed for the first few weeks by a tube passed through the wound. Since then he has taken all his nourishment by the mouth. He is now wearing an artificial larynx, and can swallow well and talk with ease. The removed larynx was exhibited and showed the malignant disease completely blocking up the rima glottidis. The affection was apparently confined to the larynx. Dr. Park said that, up to the present time, 94 extirpations of the larynx had been reported, and that this was the 95th, and the third extirpation that had been performed on this Continent.

DR. ATHERTON, of Toronto, then read a paper on

TWO CASES OF LAPAROTOMY PERFORMED FOR UTERINE MYOMATA.

In the first case the tumor was of considerable size and intra-ligamentous. The pedicle was first transfixed with pins and compressed with a rubber bandage; the tumor was then removed by a wedge-shaped incision. The vessels were ligatured and the pins and bandage removed. The two edges of the stump were then sewed together and the abdominal wound closed with silk and catgut ligature and drained. The patient did well, recovering perfectly. There was a little suppuration about the wound. The operation was performed under the spray.

The second case was that of a young lady aged thirty-five, who had had an enlargement of the abdomen for some years, with recurrent hemorrhages. The case was recognized as one of uterine fibroid. Medical treatment proving of no avail, the patient requested that operative procedures should be undertaken for her relief. Dr. Atherton, on opening the abdomen, found a large tumor filling up the posterior part of the pelvis and firmly adherent. It was transfixed with needles and a rubber tourniquet placed below them; the adhesions were separated with the finger, and as the tumor was freed the rubber tourniquet was pushed further down. The adhesions were very extensive, and the hemorrhage troublesome. The tumor was removed by a wedge-shaped incision, as in the former case, and the edges of the wound brought together with silk and catgut. When the rubber tourniquet was removed there was free bleeding, and the patient suffered considerably from shock after the operation. The abdomen was closed in the usual way, and a glass drainage-tube was introduced. The operation was performed under the spray, and the wound dressed with carbolized gauze. The patient did badly, and was in such a weak condition on the third day that transfusion was performed, and the abdomen washed out with a solution of carbolic acid, 1 to 40, but she continued to sink after a short rally, and died on the fifth day after the operation. At the autopsy gangrenous patches were found on the sigmoid flexure of the colon and the rectum. The uterine stump looked well, and there had been no hemorrhage. In the remarks made on the two cases, the reader of the paper said that in cases of uterine myoma when remedial treatment fails and oöphorectomy has not caused the tumor to diminish, the removal of the growth is indicated, especially in those cases where the system of the patient is running down. He had hopes that in the future the result of operations for removal of uterine myomata would be as favorable as after ovariotomy. He suggested that before the removal of these tumors the cervix of the uterus should be closed by a preliminary operation, to prevent the entrance of germs. This would be a more scientific method than the use of iodoform suppositories or iodoform gauze.

DR. GARDNER, of Montreal, congratulated Dr. Atherton on the success of the first case, and said that everything possible had been done in the second. He thought the suggestion, made by the reader of the paper, of closing the cervix was a valuable one.

DR. ECCLES, of London, Ont., had listened with great interest to the paper, and said that the removal of part of the uterus with a myoma is a dangerous operation, and gives rise to great shock. He had once removed the uterine appendage and a fibroid in a woman aged fifty-nine. There was great hemorrhage, which was with difficulty arrested. The tumor was removed with a wire écraseur. The abdomen was cleaned, but there was free suppuration, and the wound did not close for some time. The woman eventually recovered.

DR. JENKS, of Detroit, never had a case of recovery where there were extensive adhesions in Douglas's cul-de-sac. He thought that in these operations the preparatory treatment is most important. The bowels should not only be thoroughly emptied, but tympanites should be guarded against. Ten to twenty grains of ox-gall should be given daily for a week before operation, and rhubarb and soda on alternate nights, and the night before operation the bowels should be well washed out with enemata containing ox-gall. This method had been very successful in his hands in preventing tympanites.

DR. ROSWELL PARK, of Buffalo, related a case in which he had assisted to remove a large fibroid of the uterus, and where there was great hemorrhage after the operation. The abdomen was reopened, the hemorrhage arrested, and the cavity washed out with antiseptic solutions. The patient made a good recovery.

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DR. FULTON, of Toronto, said that he also had great trouble with clearing out the contents of the bowels to prevent tympanites. He thought that the method of drainage into the vagina has not been sufficiently tried, and believed it a most scientific and rational procedure.

DR. RUTHERFORD, of Chatham, now read a paper on

SUPRAPUBIC URINATION.

After giving the causes of complete retention and stricture, enlarged prostate, etc., he went on to describe the suprapubic tapping with trocars, and the introduction of a soft catheter. He described four cases, in illustration, where the operation had been performed for retention following enlarged prostate. In one of the cases the patient had been comfortable for four and a half years, urinating through the suprapubic opening. In another case the patient, after urinating for some time through the artificial opening, was able afterwards to pass his water by the natural passage.

DR. BURT, of Paris, Ontario, read a paper on

INTERNAL URETHROTOMY.

He described the operation fully, and related cases in illustration. He used Maisonneuve's instrument. He said that he had never seen any evil results follow the operation, except in one case of penile stricture, where he had cut too deeply, extravasation followed. He had frequently operated most successfully in very severe cases and with permanent relief. He considered the operation to be easy of performance and safe, and that in most cases it was followed by permanent cure. He operated on many cases of stricture after this method, and found that the cutting of these anterior strictures caused the spasmodic stricture of the deep urethra. The instruments used for detecting and cutting strictures were exhibited.

DR. SHEPHERD, of Montreal, could not agree altogether with Dr. Burt's views as to the necessity of internal urethrotomy in all cases of stricture. He himself had rarely found it necessary to perform this operation, as the cases needing it were few—such as penile stricture and resistant stricture. He preferred gradual dilatation in the treatment of stricture, and considered it a much safer procedure than internal urethrotomy, as the mortality in that operation even in such skilful hands as those of Sir Henry Thompson was three per cent. He did not believe in strictures that were detected by a No. 25 sound, and thought that Otis's urethrotome showed only that the urethra was less dilatable in some parts than others; and he thought that the good results following cutting in such cases are due to the moral effect of the operation in hypochondriacs.

(To be concluded.)

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

Thirty-fourth Annual Meeting, held at Ann Arbor, Michigan, August 26–31, 1885.

(Specially reported for THE MEDICAL NEWS.)

THE Thirty-fourth Annual Meeting of this Association was begun on August 26th, under the presidency of PROF. H. A. NEWTON, of New Haven. A number of papers of medical interest were presented, of which the following are abstracts:

PROF. W. R. NICHOLS, of Boston, Vice-President delivered the Annual Address before Section C (Chemistry). He took for his subject,

CHEMISTRY IN THE SERVICE OF PUBLIC HEALTH.

It is peculiarly appropriate that chemistry should serve the public health, because many of the dangers to which public health is liable result from the industrial and other applications of chemistry itself.

In studying our surroundings let us begin with the air, considering its normal condition and the changes due to crowding of individuals and pursuit of manufacturing industries. We must also investigate the atmosphere beneath us—the ground air. The water we drink, our food and its adulterations, the clothing we wear, the houses we inhabit, the pavements we tread, all claim consideration in the light which chemistry affords.

In the service of sanitary science, chemistry has an educational office to fill. The undiscerning public do not appreciate the nature of chemical action, nor realize that it results in a complete change of properties of the reagents. Hence the carelessness of many about putting samples of water intended for analysis into clean vessels, and the prejudice against such products as glucose, because "vitriol" is used in manufacturing it, and oleomargarine because made with *aqua fortis*.

Nowhere more than in sanitary matters is a little knowledge a dangerous thing. The uninformed generally have some bugbear to make life a burden to them. Now it is *microbes* or *bacteria;* yesterday it was sewer gas, or perchance the adulteration of food.

Many of the notions regarding the detrimental effect of these things, arise from lack of knowledge. Not all microbes are deleterious. Chemistry fails to detect poison in sewerage. So-called adulterations of food are not always, perhaps not usually, unhealthful.

The investigation of existing evils is an important service to public health. We can hardly, for example, bring the charge of extravagance against the investigation of *The Lancet* into the character of the articles of food sold in London.

Chemistry may suggest practical remedies for existing evils. Factories which occasion detriment to public health may, in some cases, be suppressed, but unless recently established this course can seldom be pursued. Especially with reference to *chemical* trades or *chemical* nuisances, it is for *chemistry* to say what is practicable.

Of the chemists who have interested themselves in the public health we may note Lavoisier, Guylon de Morveau, Fourcroy, Berthollet, Chevreui.

More recent workers are, Frankland investigating river pollution, Schutzenberger devising methods of determining oxygen dissolved in water, Mallet studying methods of water analysis, Remsen the organic matter in the air, and Leeds the effect of charging water, used as a domestic supply, with air.

Pettenkofer approached the matter from a physiological standpoint, and his students in the Munich Laboratory have brilliantly shown how chemistry can aid both physiology and hygiene. His method of determining the amount of carbonic acid in air remains to-day substantially unaltered.

Robert Angus Smith devoted almost his entire life to the pursuit of sanitary chemistry.

Although printed directions are much better than in

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former years, the problems of sanitary chemistry are not yet solved.

Numerous chemists have analyzed the atmosphere with reference to its main constituents, more recently investigating the changed relation of oxygen and nitrogen under changed barometric conditions. But while we know so much, who knows what is the bearing on the health of the community of the slight natural variations to which the atmosphere is subject? How far do they contribute to the healthfulness or so-called malaria of a locality? Although the passage of carbon monoxide through heated iron is practically of no account, who can tell us the composition and the amount of the gaseous *somethings*, which, escaping, make the air of a house heated by anthracite so different from that of one heated by wood fire?

All the methods of examination of water heretofore employed are open to criticism. Some believe that the wholesomeness of water can only be decided by *biological* examination.

The *materies morbi* which convey specific disease is generally believed to be organized, and the method of analysis consists in mixing a measured volume of water with gelatine and counting the number of colonies developed after a certain time. The microbes may be further studied by high powers of the microscope, and by staining media, and their pathogenic effects tested on animals; but this is not usually done. The water is simply graded by the number of microbes found. We cannot believe that these methods will for a long time supplant chemical analysis. In order that they should do so, it must be established that the evil effects of impure water are due to them. The mere proportion of bacteria found cannot be a criterion. When biological examination of water has been placed on a firm basis it will be necessary to discover what chemical characters belong to an impure water.

Much chemical work remains to be done in the matter of the pollution of streams, especially by sewage. The natural purification of streams is admitted to be a fact, but its extent is not settled, nor the effect of different agencies. We must study the effect of oxygen in dilute solutions of the variety of chemical substances in the complex mass known as sewage.

Recent years have seen increased activity in investigating adulteration of food, and more stringent laws to prevent adulteration.

In Germany, since the law of May 14, 1879, most large cities have established laboratories for food analysis, which are at the service of the public, either gratis or nearly so. In Austria, the examinations required by the law of April 30, 1870, are carried out in existing laboratories. In France are several laboratories, that of Paris having more than twenty-five chemists, but its methods and standard have been criticised. In England the Sale of Food and Drugs Act (1875, amended 1880) called for appointment of public analysts throughout the kingdom.

In this country laws against adulteration exist in several States, and in New York, Massachusetts, and New Jersey they have been made more stringent on account of the popular feeling in 1878–79. No laboratories have been established, however.

In this country individuals seldom care to prosecute, and the laws must be enforced by official inspection. Existing laboratories are probably sufficient, and it is advantageous to secure coöperation among chemists as is now done in New York. There is an American Society of Public Analysts meeting in New York and Brooklyn.

The chemist has to solve many problems of special sanitary importance. The greater bulk of this work is done in Germany.

One of the first independent laboratories established for the investigation of agricultural, pharmaceutical, and physiological chemistry is at Dresden, under Dr. H. Flack, and was opened in January, 1871. The expenses are borne by the State. Among the subjects investigated are the various methods of water and food analysis, methods of rendering combustible material uninflammable, the composition of the ground water and the ground air in various localities, including cemeteries, the composition of the air in buried coffins, or in the neighboring ground, and the character of the water draining therefrom, the porosity of soils to water and air, the pollution of streams, the effect of arsenical paper hangings; studies have also been made on disinfection and disinfectants, on natural and artificial ventilation, and on the ventilation of particular buildings. In our own country many such matters have also been studied. The State Board of Massachusetts led the way; others have followed.

The laboratory of Berlin deserves mention, being devoted to the solution of various hygienic problems.

The laboratory of the Observatory of Montsouris, in Paris, closes this incomplete list. It was established in 1871, for the study, principally, of meteorology in its bearing on agriculture and hygiene. Regular chemical determinations are made of the ozone, carbonic acid, and ammoniacal and organic nitrogen in the air; in the meteoric waters. Estimations are made of the ammoniacal and organic nitrogen, of the nitrogen in the form of nitrites and nitrates, and of the organic matter oxidizable by permanganate of potash.

An essential preparation for this work is thorough knowledge of chemistry and physics. The Massachusetts Institute of Technology has equipped a laboratory for special study in reference to sanitary chemistry.

Although we use the term "sanitary" chemistry, we must not lose sight of the fact that the underlying principles are the same as in all chemistry.

Courses of sanitary engineering are being opened in various technical schools. It would be well to give students in these courses some instruction in chemistry, with special applications, in order that they may have an intelligent idea of what questions to submit to the chemist, and how to understand the results.

(*To be concluded.*)

NEWS ITEMS.

NEW YORK.

(*From our Special Correspondent.*)

THE CONCOURS SYSTEM is about to be tried in this city, its inauguration being at the College of Physicians and Surgeons, where it is proposed that an adjunct to the Professor of Surgery shall be appointed. Three of the brightest young surgeons of this city, Drs. W. T. Bull, Hall, and Halstead, it is said, will be competitors.

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THE ADVERTISING ABUSE that THE NEWS has editorially noticed and condemned, has again cropped out in the form of a highly colored report of a "new and terrible operation performed at the Charity Hospital." The procedure was simply abdominal section for cancer "weighing twelve ounces." The most minute details of the operation were published by several newspapers, and pains must have been taken to secure the attendance of their various reporters. It is only a few months ago that one individual secured a puff upon the merits of a revolving knife, and if this thing goes on we shall rival the patent medicine men in our methods.

THE CARTWRIGHT LECTURES.—It is reported that the coming Cartwright Lectures will be delivered by Dr. Osler. The high character of this gentleman's London lectures presages a great improvement over anything we have had here before.

THE HOBOKEN DRUGGIST'S MISTAKE.—The occurrence of a druggist's mistake in Hoboken, whereby two young women lost their lives through the substitution of ten grains of the sulphate of morphine for quinine, has given rise to a great deal of newspaper discussion. Several druggists who have been interviewed call attention to the looseness of prescription writing and the tendency to abbreviations. Though it seems, upon the part of physicians, almost too much to expect an enforced preliminary classical course in these days when men study medicine as they would plumbing, it certainly should be required that they be made to acquire sufficient knowledge of Latin to order medicines. Perhaps the labor-saving formulæ of prepared pills and other medicines are responsible for this.

HOW THE DOCTORS TAKE THEIR HOLIDAY.—The number of medical men who have passed their summer in Europe is not so large as usual. Drs. Agnew, Otis, and a few others have established a little summer medical colony at Montauk Point, Drs. Jacobi and Gillette go to Lake George, Dr. Thomas to Southampton, Drs. Cleveland and Robinson to Newport, while Drs. Dawson, Loring, McLane Hamilton, and others, take to their yachts. Drs. Sands and Peabody go to Halifax, and a number of the elderly men stay in town.

SMALLPOX IN MONTREAL.—There were twelve deaths from smallpox in Montreal on Saturday, fourteen on Sunday, and twelve on Monday.

The Central Provincial Board of Health met on Monday at Montreal, and decided to issue circulars to all the municipalities in the Province, ordering them at once to establish local boards of health. The representatives of the Montreal City Council announced that it was the intention of that body to erect a permanent contagion hospital containing 200 beds. In the meantime a temporary ward would be begun on Tuesday, in connection with the present smallpox hospital, to contain fifty patients. This brings its capacity up to 119 beds.

Ten physicians will be appointed at once to begin house-to-house vaccination.

The officers of the New Hampshire State Board of Health, who have returned from Canada, express the highest dissatisfaction with the inefficiency displayed by the City Government of Montreal in its dealings with the smallpox epidemic. They say that immediate action must be taken if New England is to be spared from the disease. The running of passenger cars through from Montreal by way of Concord was stopped on Monday, and all through passengers will be transferred at or near the boundary line. The subject of stopping all trains beyond the line is said to be under consideration by railway officials.

President Connor, of the State Board of Health, holds that the United States is the only power that can establish an effectual quarantine between Canada and New England.

PUBLIC OPINION ON THE CONGRESS OUTLOOK.—The outlook for the Congress is critical, and the honor of the medical profession of the United States is involved in the success of that Congress. Therefore, those who have been intrusted with the preparation for it should weigh well every official act of theirs. Too many mistakes have already been made. The present Committee cannot afford to add to that number, any more than the profession at large can afford to have it done. Broad, liberal ground should be taken by the Committee. It has the experience of the eight preceding congresses to guide it. Surely the experience gained in them should greatly aid the present committee, and the advantages of that experience should not be lost or ignored.

In the organization of the Congress, the same rules should govern in the next that have obtained in the past. No distinction should be made between the foreign and American members. The fact should be distinctly kept prominent that it is not a delegated body. It has not been in the past; there is no valid reason why there should be any effort to make the next one such. There should not be two or more classes of members. All must meet on the same plane—with equal privileges—equal duties—and equal responsibilities. Let all local ethical questions be eliminated. The foreign representatives expect and demand this, and such is their right. There may be honest differences of opinion, in our own country, on certain points of principle and policy, but there can be no valid reason for thrusting them, or their effects, upon foreigners who may come here. Sight should not be lost of the fact that science and humanity are the objects for which these congresses convene, and that all matters of selfishness and partisanship should be subordinated thereto.

As our faith, as a profession, was pledged, when our invitation was accepted, to do all in our power to make a success of the Congress, we cannot do less. Everything that might conflict therewith, and diminish the prospect of such success, must be kept in abeyance.

For the official positions—whether the most prominent or the subordinate ones—only representative men should be selected. Much of the success or failure of the Congress will depend upon the wisdom and the fairness of the action of the committee at its coming meeting. We hope that it will be such that there may be no occasion for vain regret.—*Chicago Medical Journal and Examiner*, September.

After the utter failure of its efforts at Chicago, and in view of the disturbance its action has brought about, we have felt that this Committee was in duty bound to decline any further participation in the work of reorganization of the Congress. Having so signally failed at Chicago we are unable to understand upon what grou it can hope to be more successful in its future under

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ings. From a circular which has recently come into our possession we fully recognize the part which this new Committee will attempt to perform. Bracing itself up under the issues of the "Code" this Committee will urge the reorganization of the Congress upon this platform.

But after all, this cry of the "Code" has a tamer significance than a casual observation would indicate. We have already noticed the fact that the "Code" issue has been repudiated by the very best scientific minds in this country and in Europe. The present Committee has caught on to this issue as a possible popular wave to ride into high official position and authority.

Indeed, the whole outlook for the Congress is utterly ridiculous and absurd. The profession in this country may well cry shame over its present humiliation. Who can look on and not blush over such an arrangement as is proposed by our National Medical Association in honor of a great and influential body of scientific workers?—*Maryland Medical Journal*, September 5, 1885.

PORTRAITS OF DECEASED SURGEON-GENERALS.—Judge Maynard, Second Comptroller of the Treasury, in passing on the accounts of J. O. Skinner. Assistant Surgeon and Acting Medical Storekeeper, U. S. A., has disallowed three vouchers, aggregating $505, for portraits of deceased Surgeon-Generals of the army, with their frames, which were certified by Surgeon Huntington, Curator of the Army Medical Museum, and approved by the Surgeon-General. He says that without regard to any irregularities which may exist in the method of making these purchases, he does not think the accounts for them can be allowed on the proofs presented.

It is sought, he says, to make them chargeable to the Medical Museum appropriation for 1883, under the following provision: "For the Army Medical Museum and for medical and other works for the library of the Surgeon-General's office, $10,000." He holds that the money thus appropriated can only be lawfully expended for works relating to medical science or illustrative of the anatomy of the human system, or which will be serviceable in the treatment of diseases, and adds that, "if it is desirable that the walls of the Museum should be adorned with the portraits of the distinguished men who from time to time have presided over the administration of the Medical Department, Congress should provide for such an expenditure in clear and unmistakable terms.

"The Medical Department is but a Bureau of the War Department, and if money, which was designed for the maintenance of the Medical Museum, in the absence of express authority can be applied to purchases of this kind, then no objection could be successfully interposed to the expenditure of this appropriation for the purchase of portraits of the different Secretaries who have presided over the War Department, or of the Generals of the army, and of the President, who is its Commander-in-Chief. It is the safer rule to limit all expenditures under such appropriations to the specific object for which they were intended, and any transgression of the rule might lead to the establishment of a vicious precedent."

NOTES AND QUERIES.

THE AMERICAN BIBLIOGRAPHY OF PHYSIOLOGICAL OPTICS.

PROF. H. D. NOYES, of New York, sends for publication the following letter from Dr. Kœnig, assistant of Professor Helmholtz, in Berlin, which opens the way to American authors to receive due recognition in the pages of the book which is the great classic on the subject of physiological optics.

BERLIN INSTITUTE OF PHYSICS, August 6, 1885.

DEAR DR. NOYES: If I remember rightly, I told you at our last meeting, which I recollect with great pleasure, that a new edition of the *Physiologische Optik* of Professor Helmholtz was being prepared. At present the work of printing has begun. The bibliography will be printed last, and in a separate chapter. It is to be enlarged, and to be brought up to the present time. At the request of Professor Helmholtz, I have taken charge of this part of the work. On account of the enormous increase of the literature of physiology during the last twenty-five years, it is very difficult to make it complete. In order to be as thorough as possible, I have published a request asking authors to favor me with a notice of their publications relating to physiological optics. This has appeared in several French and German ophthalmological journals. Would you have the kindness to procure the insertion of a similar call in some of your American journals? My address, to which letters may be sent, is Dr. Arthur Kœnig, No. 16 Weire Wilhelm Strasse, Berlin.

Any communications on the above subject will place me under great obligations. Most sincerely yours,

ARTHUR KŒNIG.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, FROM SEPTEMBER 1, 1885, TO SEPTEMBER 7, 1885.

MAGRUDER, D. L., *Lieutenant-Colonel and Surgeon.*—Granted leave of absence for fifteen days—*S. O. 201, A. G. O.*, September 3, 1885.

MIDDLETON, PASSMORE, *Major and Surgeon.*—Assigned to duty as Attending Surgeon at these headquarters, vice Major J. V. D. Middleton, Surgeon, hereby relieved.—*S. O. 131, Department of the Missouri*, August 28, 1885.

GIRARD, ALFRED C., *Captain and Assistant Surgeon.*—Assigned to duty as Post Surgeon at Boise Barracks, Idaho Territory.—*S. O. 142, Department of the Columbia*, August 22, 1885.

KANE, JOHN J., *Captain and Assistant Surgeon.*—Upon expiration of his present leave of absence, to be relieved from duty at Willet's Point, New York Harbor, and to report to Commanding General Department of Texas for assignment to duty.—*S. O. 201, A. G. O.*, September 3, 1885.

BANISTER, JOHN M., *Captain and Assistant Surgeon*—Assigned to temporary duty at Camp of Competitors at Creedmoor, N. Y., arriving not later than September 4, 1885.—*S. O. 58, Division of the Atlantic*, August 31, 1885.

RICHARDS, CHARLES, *Captain and Assistant Surgeon.*—To be relieved from duty in Department of the East, and to report to the Commanding Officer at Willet's Point, N. Y., for duty at that station.—*S. O. 291, C. S., A. G. O.*

KENDALL, WM. P., *First Lieutenant and Assistant Surgeon* (recently appointed).—To report in person to the Commanding General Department of California, for assignment to duty.—*S. O. 201, A. G. O.*, September 3, 1885.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY DURING THE WEEK ENDING SEPTEMBER 5, 1885.

STEWART, HENRY, *Surgeon.*—Leave of absence extended one year from October 15th, with permission to remain abroad.

STEELE, JOHN M., *Passed Assistant Surgeon.*—Detached September 1st from Constellation, and report for duty at Naval Academy, Annapolis, Md.

BRIGHT, GEO. A., *Surgeon.*—Detached Sep. 1st from Constellation and await orders.

DICKSON, S. H., *Passed Assistant Surgeon.*—Ordered to Naval Academy, Annapolis, Md., as relief of Passed Assistant Surgeon A. A. Austin.

FITTS, HENRY B., *Assistant Surgeon.*—Detached from Coast Survey Steamer "Gedney" and wait orders.

AUSTIN, A. A., *Passed Assistant Surgeon.*—Detached from Naval Academy, Annapolis, Md., and ordered to Coast Survey Steamer "Gedney" to relieve Assistant Surgeon H. B. Fitts.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLVII. SATURDAY, SEPTEMBER 19, 1885. NO. 12

ORIGINAL LECTURES.

DYSMENORRHŒA.

A Clinical Lecture delivered at the Post-Graduate School of New York.

BY A. J. C. SKENE, M.D.,

PROFESSOR OF GYNECOLOGY TO THE LONG ISLAND COLLEGE HOSPITAL AND POST-GRADUATE SCHOOL OF NEW YORK.

(Reported by Edward Develin, M.D.)

GENTLEMEN: To-day I wish to bring specially to your notice the subject of dysmenorrhœa, illustrating my remarks with such cases as I shall present for your personal examination.

Our first patient is a young girl, seventeen years of age, unmarried, who commenced to menstruate when she was sixteen. She has since that time always been regular in her menstruation, the flow lasting from four to five days. During these periods she always suffers from pain, which continues during the flow. She menstruated last, just one week ago. She has no special difficulty with her urinary organs. She has had constant but not very free leucorrhœa, with pain in the left side; bearing-down pains, continuous headache, and also pain extending down the left leg; there is also tenderness of the left ovary. When the pain is most severe, the breasts, she states, ache very badly. The pain in the head, I should state, is almost always upon the right side. All of these symptoms are increased just previous to menstruation.

You will remember that the patient has just passed the age of puberty, and from the symptoms given us in connection with this fact we should be led to believe that the sexual organs are not sufficiently developed to perform their natural functions; or, in other words, she may be suffering from an arrest of development of the sexual organs, or perhaps a malformation, or both.

One point which strikes me very forcibly is her nervous symptoms. You are, of course, aware that much has been said and written about the disturbances of the nervous system due to a reflex irritation of the sexual system. Neurologists are apt to claim such cases as due to the nervous affection; that is to say, that the primary difficulty arises in the nervous system, leaving out of account to a large extent the sexual system. Gynecologists, on the other hand, are perhaps apt to refer the difficulty to the sexual organs, and regard the nervous affection as secondary, or a condition induced by reflex action from irritation of the sexual organs; they perhaps view the case entirely through the speculum.

Now, I have tried to be impartial, and to give to the nervous system its due, and also to share the responsibility of the derangement with the sexual organs. I have investigated carefully by clinical observation, and endeavored to decide how much of the disturbance is due to a malcondition of the nervous system primarily, and if the sexual irritation was not secondary. The neurologist, by his experience with nervous diseases and accurate means of investigation, might make a diagnosis with facility, which, perhaps, might puzzle the gynecologist in his everyday practice; hence, in obscure cases, it is well to seek the counsel of a neurologist. During my observations, however, one rule has been quite reliable as a guide in uterine diseases complicated with nervous troubles, viz., Which appeared first, the nervous symptoms or symptoms of sexual derangement? Did this patient first manifest symptoms of distress in the head and limbs, or were symptoms of distress noticed in the pelvic region, in the sexual organs. It is quite fair to suppose that the symptoms which appeared first indicate the primary lesions, and such I have found to be almost invariably the rule; but, like all rules, there are rare exceptions.

In this case, her local trouble appeared first, followed by hemicrania, pains in the body and left leg. These appeared some time after she had been suffering from dysmenorrhœa. So I think that we are perfectly safe in saying that her nervous disturbance is reflex, the nervous symptoms being always aggravated during menstruation.

Menstruation, when performed by perfectly normal sexual organs, is not associated with any *marked* disturbance. On an average, forty-five per cent. of women suffer from some disturbance, the remaining fifty-five being free from distress. So that when any general symptom is very decidedly aggravated during the menstrual period, we take it as positive or presumptive evidence that it arises from some derangement of the sexual organs. More than that, if a nervous symptom which appeared at first only at the menstrual period, eventually becomes continuous, we would infer that it is reflex. Instead, therefore, of directing our treatment to the nervous system, we at once direct our attention to the sexual system, where we know that a difficulty exists, and if our diagnosis be correct, the disturbance of the nervous system will abate as the local trouble is relieved. If relief does not follow our local treatment, this shows that either the nervous symptoms arise from a disease *per se*, or else the nervous trouble was at first reflex but in time became centric and continued after the cause was removed. The rule, however, which I have just stated as to the primary lesion in these cases, is quite reliable for purposes of diagnosis.

This patient is suffering from an anteflexion of the body of the uterus, with a partial anteflexion of the neck, the uterus being also a little below the normal elevation. I have frequently stated that we often meet with this anteflexion of the neck owing to an imperfect invagination of the cervix. As the uterus settles down into the vagina at a certain period of life, the posterior wall in these cases goes down faster than the anterior, making the length of the posterior portion of the cervix abnormally longer than the anterior. This shortness anteriorly, you can then readily understand, has a tendency to draw the cervix forward, and hence is one of

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the causes of anteflexion of the cervix. I find on examination, also, a marked tenderness of the right ovary; this may be the cause of the pain extending down the right leg of which she complains, the irritation at the ovary having extended to the sacral plexus of nerves. In relation to the headache here existing, we all know that nervous exhaustion from over-functional activity of the sexual organs tends to develop sick headache, and that it is also an established fact that functional derangement of these organs will produce this pain in the head, and we also know that this derangement is in some way related to epilepsy. We must not, however, attribute every sick headache to this cause, any more than we would say it is the cause of every case of epilepsy.

Now as to the management of this case. We shall treat it as an ordinary anteflexion, restoring the uterus to its normal position and retaining it there with an anteversion pessary. Dr. Emmet, in a case like this, converts it into a simple anteversion by pushing the cervix backward, so that the uterus is made straight.

Let me say here that that treatment will answer in a case like this, because the patient is not suffering from any disturbance of the bladder. We must remember, however, that in many cases of anteversion we have frequent and painful urination, which is a source of great discomfort to the patient. In that class of cases, therefore, if you were to follow out Emmet's method as I have just stated, you might, perhaps, relieve the dysmenorrhœa, but you would certainly aggravate the cystic trouble.

We should always bear in mind, in these cases of malformation, that we have both hyperæmia and hyperæsthesia of the parts; so that the uterus, owing to its irritable condition, will not perform its natural functions without complaining. As a rule, I think that hyperæmia always accompanies these malformations, but I presume that it is due to the imperfect functional action primarily.

In dysmenorrhœa we have one class of pathologists who tell us that the difficulty arises from some obstruction of the cervical canal caused by the flexion. Another class will tell us that the flexion has nothing to do with it; both classes bringing forward cases to prove their theory.

I endeavor to harmonize these statements in this way. I believe you may have dysmenorrhœa from stenosis and also where stenosis does not exist. I believe that in those cases where flexions exist, if the physiological hyperæmia at the time of menstruation is not sufficient by its engorgement to straighten the uterus and render the canal free from occlusion, that you will have dysmenorrhœa. This form of dysmenorrhœa, therefore, is due to mechanical causes, and in these cases the pains will be intermittent like miniature labor pains, the flow being more profuse after the pains; whereas, the pain which is marked by a dull aching feeling, continuing through the entire flow, I believe to be due to hyperæmia and hyperæsthesia of the parts, and not due to obstruction from true stenosis or flexion, even though the latter may exist. You can readily understand how either one of these conditions may cause dysmenorrhœa; and yet we meet cases in which there are hyperæmia, hyperæsthesia, and malformation, and no dysmenorrhœa occurs.

When we are not positive as to which of these conditions produces the dysmenorrhœa, we are set at rest in regard to the treatment. Whether it be due to one or the other, we should endeavor to remove both. Straighten the uterus and relieve the hyperæmia and hyperæsthesia as indicated. So that while we may be puzzled to know which is the first link in the chain of the pathology of the disease, we have no need to doubt about the treatment. Therefore, if you find a malformation, do not be content with removing that, but at the same time treat the accompanying engorgement and hyperæsthesia in the same manner as you treat other hyperæmic conditions of the uterus.

I believe that much of the good that comes from Sims's operation of dividing the cervix is not so much due to the operation, but the relief of the hyperæmia. The free hemorrhage and rest in bed after the operation do much toward relieving these tender, irritable states of the uterus. And when the woman gets up and assumes her regular vocations, I believe that unless she becomes pregnant the same difficulty will recur. I think the failures which occur in treating dysmenorrhœa are principally due to neglect on the part of the physician to treat both the malformation and the derangements of circulation and innervation *at the same time.*

Now, in the case before us, while we are fully considering our local treatment, we must remember that the patient is only seventeen years of age; there is, therefore, yet hope of building up the development of the sexual organs, in order that their functions may become normal.

Much has been said and written in relation to the development of the sex in relation to the development of the sexual organs. Some who are extremely orthodox believe that all a woman has to do in order to become perfectly developed, is to wear low-heeled shoes and abandon the use of corsets. One will say the arrest of development is due to wearing corsets; another, to using high-heeled shoes; others, again, attribute it to mental aspirations and high mental culture. A rational scientist, however, takes a broader view of the whole matter, and will state that either or all of these will tend to arrest development. We know positively that it is essential to the woman's well-being that the sexual organs should be perfectly developed in order that they may perform their natural functions perfectly. We also know that we can do most to secure their development through their general organization. Instead, therefore, of giving our attention exclusively to the cure of malformations, hyperæmia, etc., let us turn our attention also to the improvement of general nutrition to further the desired development. As the sexual organs are dependent upon the general organization, we can stimulate them through the nutritive system. Therefore give such patients good air, good food, not too much rest, but good hygienic surroundings.

Our second patient is twenty-three years of age, and has been married eight months. She has suffered severely all her menstrual life from dysmenorrhœa, although her menstruations have always been regular.

During the last eight months, that is to say, since she has been married, her dysmenorrhœa has been increased. This is an important point for us to bear in mind, as there are certain cases of uterine disorders in which a change in social relations effects the most satis-

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factory results. On the other hand, however, there are cases in which this change effects the most disastrous results.

The question as to the results of marriage in certain persons afflicted with uterine disorders will often be put to you by the heads of families; it is, therefore, of great importance that you give a correct answer to their interrogations, as such answer may involve the happiness of two persons, at least. There are certain affections of the uterus, such as slight hyperæmia or leucorrhœa, which will not be increased or aggravated by matrimonial relations. Then, again, there are other affections which are invariably made worse by sexual intercourse, and the case now before us I judge to be one of these latter.

If, now, you are asked whether it will be well for a woman to marry whom you know is suffering from some organic disease, it will be wiser for you to say that a matrimonial alliance will be likely to increase her uterine difficulty. If, however, the case be one of mere functional disturbance, it may be improved by such relations. You cannot be too particular on this point, and should be on your guard against making an error in your answer.

This patient presents to us a history which indicates that there is in all probability organic disease, or malformation. When from the very outset of the menstrual function dysmenorrhœa has been the rule, we may be almost certain there is some organic lesion. Your advice then should be: don't marry.

I will now make an examination in this case, and give you the physical signs as I obtain them by the touch.

I find here a malformation in the relation of the cervix with the vagina, the uterus being also low down in the pelvis. I find there is no invagination of the anterior wall of the cervix; it is, however, invaginated slightly posteriorly, but not much. There is here a curious condition of things, being more marked than I have ever seen before. The vagina, anteriorly, comes off in a perfect line with the cervical canal. As I pass my finger along the anterior vaginal wall it comes into contact at once with the os externum; the anterior wall of the cervix being so very thin, there is not the slightest invagination. We have here also a marked anteflexion of the cervix, due, I have no doubt, to this imperfect invagination and arrest of development. In speaking of the development of the sexual organs, I have told you that at the end of the primary development the vagina and cervix simply meet; there is at that time no invagination of the cervix. But during the secondary development the uterus settles down into the pelvis and invagination occurs. Sometimes this process is arrested, owing, perhaps, to some malnutrition of the part, or some inflammatory action. Such an arrest of development has undoubtedly occurred in this patient, and the same I believe to be the cause of her dysmenorrhœa, aggravated by the hyperæmia which is developed sooner or later by such malformation.

As I now place the woman in Sims's position, and pass the sound into the cervical canal, it passes back towards the hollow of the sacrum, and when I reach the internal os I am compelled to revolve the sound in order that it may reach the fundus, thus proving the physical signs as obtained by the touch to be correct. On measuring the length of the body I find it to be but one and one-half inches in length. We cannot, then, with this history and these physical signs, have any possibility of doubting the cause of her dysmenorrhœa and sterility.

Now as to treatment. Our first idea would be to correct this malposition of the cervix, it being the most marked. That we can do by performing Sims's operation, and, perhaps, in that way relieve her dysmenorrhœa. This operation consists in dividing the posterior wall of the cervix, by this means changing the direction of the cervical canal so that it would be almost or quite straight. In this way you cure one malformation by producing another; but you relieve your patient, if not permanently, for the time being. By performing this operation we can sometimes cure the patient of her sterility and also her dysmenorrhœa. The dysmenorrhœa, however, will recur again if she does not become pregnant; for this reason the operation often fails because we do not select our cases. If you have a patient with a large, well-developed body of the uterus, and one who menstruates normally and freely, except that she has dysmenorrhœa, having no other trouble but this forward flexion of the cervix and imperfect invagination, we might expect to accomplish much by Sims's operation. But in this case I am sure it would prove a failure, as the whole uterus is undersized, and I doubt whether she could ever become pregnant, or carry on gestation if she did. We might overcome the dysmenorrhœa for the time being, but I do not think we could cure her sterility. I shall, therefore, decline to operate, as I do not think any permanent relief can be obtained.

I have said that if after the operation the woman does not become pregnant her dysmenorrhœa will return. This, perhaps, needs an explanation. The reasoning is simple enough. In all of these operations we have resulting scar tissue. If the cervical canal be only enlarged at the time being, mechanical factors not being brought into play to maintain the enlargement secured, we have this cicatricial tissue contracting down and shortening the cervix with partial occlusion of the canal taking place in a few years. In some cases the intrauterine stem is passed into the canal to keep it widely open, but this is too frequently of itself a source of great danger and irritation.

If this woman were but seventeen or eighteen years of age we might, by performing Sims's operation, afterward introducing the stem pessary, hope to cure her of her dysmenorrhœa, so that she would become more developed and afterwards bear children. But at twenty-two years of age we cannot hope for this.

In our present case we can relieve the hyperæmic condition there existing, and can also cure the catarrh of the mucous membrane; we can also dilate the cervical canal. She might by some accident become pregnant; we cannot always be positive in these cases.

I know of no operation in uterine surgery which has been so much abused as this operation of Sims's just spoken of. Division of the cervix has been so often performed for all kinds of malformations that it has given rise to rather an energetic discussion among gynecologists. I am sure, from observations during a long period, and giving due weight to both sides of the question, that the case now before us is the limit of the

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desirability of the operation. By this I mean, when forward flexion of the cervix *exists alone* we may hope for the best results from the operation.

We should, however, bear in mind that the object of this operation is to relieve dysmenorrhœa and sterility, and if it does not relieve the sterility, the patient gains nothing in the long run, but may in time be the worse for it. If the operation makes pregnancy possible, the development of the uterus during gestation will cure the original arrest of development; but if pregnancy does not occur, the operation is but a mutilation added to a deformity, and the two are worse for the patient than the original malformation alone.

ORIGINAL ARTICLES.

SOME THERAPEUTICAL USES OF PILOCARPIN

BY A. B. ISHAM, M.D.,
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INSOMNIA OF ALCOHOLISM.

A LITTLE over a year ago I had a case of uræmic convulsions in a vigorous male subject, in which the convulsive action was quieted by venesection and the hypodermic injection of morphia. In the semi-comatose condition succeeding, he was seen by Dr. J. C. Mackenzie as consulting physician. A very active delirium followed, and pilocarpin muriate was employed to promote the elimination of urea. The tranquillizing, soporific influence of this alkaloid was so marked as to suggest the probability of its usefulness in alcoholic insomnia, in which an agent capable of producing sleep without specific action upon the nervous system, at the same time inducing rapid excretion of alcohol, and without any of the intoxicating properties of the narcotic drugs so universally resorted to in this condition, would appear to be a special desideratum.

It was only a short time until an opportunity occurred to test its practical value. This presented in the case of a plethoric individual who was accustomed nightly to woo "nature's sweet restorer" with a pitcher of beer. In consequence, a gastric catarrh had developed, for the relief of which whiskey in copious and frequent draughts was the remedy chosen. This in turn had brought on the "horrors," and the common enemy of mankind was but poorly concealed in the background. The patient had already, for a day or two before I saw him, been given chloral and potassium bromide in scruple, half drachm, and drachm doses without any beneficial effect. It made him wilder, and more intractable, provoking a mental and physical state of disquietude and torture beyond what the whiskey itself might have been justly responsible for. He was retching every few minutes, eyeballs bloodshot, protruding and glaring, countenance suffused and bloated, hair dishevelled, howling and cursing—the picture of a tormented wild beast, rather than of a human being. One-third of a grain of pilocarpin muriate (Merck's) was administered hypodermatically, and a large mustard plaster placed over the epigastrium. In ten minutes copious perspiration, with free salivation ensued, and slumber succeeded, lasting continuously for five hours. The patient awoke quiet and *sober*. Ice water was asked for and given. Short, restful naps were taken. No desire for liquor was expressed, and the importance of abstaining from it altogether was urged and acquiesced in. Milk and lime-water, buttermilk and beef extract were given *ad libitum*. The gastric catarrh was successfully treated with resorcin, gr. vij *ter in die*. The catarrhal trouble in this case may have been ameliorated by the pilocarpin's unloading the turgid capillaries of the stomach, but in other cases of drinkers' dyspepsia, in which pilocarpin was not administered, resorcin in my hands had proved so specific in its action that I did not venture to withhold it in this instance. Pilocarpin was continued in one-third grain doses for two more successive nights, when cure was complete. He refrained altogether from the use of liquors for one month, a practice he had not observed before for years. During this period of abstention he ate well, slept well, and, as he himself stated, never felt better in his life.

Unfortunately for himself he was not in political affiliation with the prohibition party, and being an ardent patriot, could not withstand the blandishments of his party associates. He lapsed again, again stood upon the ragged edge—and again was brought back to self-control and duty by pilocarpin. He was also strictly abstemious after the second attack. Once more official decapitation caused him to lose his balance; pilocarpin restored it, and he is to-day leading a perfectly sober life.

The remedy has been tried with as signal success in two other subjects of alcoholism. The history of such cases is so familiar to the profession as to make detail unnecessary. One was an habitual drinker, with occasional excesses, and the other a "spreer," with intervals of abstention.

The *sobering* properties of pilocarpin are remarkable. After the sleep the patient arouses perfectly rational and subdued—a consummation of no little importance, as all know who have to treat the victims of alcohol, since it renders them amenable to moral influences. The transformation wrought in the physical appearance is almost marvellous. The tense, red, bloated countenance, the bleared congested eyes, and general repulsive facial aspect pass away. The skin looks pale, clean and soft, the features calm and easy, the eyes clear or with only a slight yellowish tinge. Clothed in such an innocent guise the subject of a recent debauch might easily deceive even an expert.

There are three ways in which pilocarpin doubtless exercises a therapeutic influence in alcoholism. 1. By lowering the cerebral blood pressure. 2. By eliminating alcohol. 3. By increasing the absorption of oxygen.

The throbbing carotids, the suffused face, and congested eyes in acute alcoholism all bespeak an increase of blood pressure in the cerebral vessels. It goes without saying that an increase of irritability of nervous centres is consequent thereto. The rapid and enormous cutaneous transpiration and salivary outflow occasioned by the exhibition of pilocarpin diminish the blood pressure, and must lessen nervous excitability in proportion to the extent to which it was enhanced by the previous pressure.

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Alcohol is carried off through the lungs, skin, kidneys, and general emunctory glands, while yet a not inconsiderable amount is consumed in the system through oxidation. The rapidity of elimination is in direct ratio to the activity of the excretory organs. Pilocarpin produces increased frequency of respiratory acts with much greater increase in cutaneous and glandular processes of excretion. The lowering of blood pressure, with increase in the frequency of respiration and of the heart's action, also promotes a more rapid evolvement of the physio-chemical processes upon which the combustion of alcohol depends. The excitant action of alcohol upon nervous structures is without question, and when all the means through which the agent may find external conveyance, and internal combustion are brought into most active operation by pilocarpin, the relief to overstimulated nerve tissue must be very considerable.

It has been shown by Harley and others, that ingestion of alcohol in quantity interferes with the absorption of oxygen by the blood, and Böcker and others have demonstrated that it lessens the quantity of carbonic acid exhaled. Increase of carbonic acid in the blood, beyond what should normally circulate in it, and decrease of oxygen, set up the widest range of disordered function in all tissue cells according to the disproportion in which the first element exists to the second. Therefore, the removal of alcohol from the circulation through pilocarpin, as already sufficiently indicated, restores to the blood commensurate capacity for absorption of oxygen, favors the separation of effete products, and by thus effecting a balance between tissue decay and repair, contributes to physiological rest.

LARYNGEAL STENOSIS—LARYNGEAL CONGESTION.

Last December a boy six years of age was taken with the then prevailing endemic of measles. The efflorescence over the body surface was complete, and the laryngeal mucous membrane was involved to such an extent as to produce a condition of stenosis. The temperature ranged from 102½° to 103½°; pulse rate 132; respiration frequent, harsh and embarrassed, voice husky and whispering, with a tight stridulous rasping cough, which harassed him so frequently as to have very little interval for rest. He required constant attention day and night. After the expiration of a week's sickness the temperature was 104½°; pulse 145; respiration rapid, labored and noisy, countenance pinched and anxious, the alæ of the nose following the movements of respiration, with a racking, dry, hoarse cough which came on in paroxysms every few minutes, causing the little fellow to jump up in bed, throw his arms wildly about in the air as though seeking to clutch something, while the color of his face changed to a livid hue. He wanted his mother constantly beside him. It was evident that vigorous measures for his relief must be instituted at once, and, theoretically, pilocarpin offering the best promise, it was administered in the dose of one-eighth of a grain by the mouth. Within fifteen minutes he was bathed in perspiration. Profuse salivation also resulted, and he sank into a tranquil, quiet slumber of half an hour's duration—a longer and easier sleep than he had enjoyed at any time during the whole of his illness. The temperature declined to 102½°, the pulse fell to 125, the breathing, though still rapid, was easy, the cough loose, less frequent, and but little disturbing. From this time on, his progress towards convalescence was marked and uninterrupted. A medical friend and relative who had seen the case and was cognizant of its gravity, was somewhat shocked at what he deemed hazardous experimentation, but he cheerfully accepted the result.

On the 17th of December, a contralto singer applied for the relief of hoarseness, dependent upon congestion of the larynx from cold. She had an engagement to sing in concert the evening of the 18th, which she was exceedingly anxious to fill. One-third of a grain of pilocarpin was prescribed to be taken per orem at bedtime, and crystals of potassium nitrate, the size of a small pea, to be slowly dissolved in the mouth throughout the next day. She was enabled to fulfil her engagement satisfactorily.

In the above cases the decrease in blood-volume, induced by pilocarpin, lowered the blood-pressure, relaxed the engorged vessels, reduced the swelling of the laryngeal mucous membrane through the occurrence of free secretion upon its surface, and the blockade being thus raised, natural forces were able to effect resolution without further aid.

I have made use of pilocarpin scores of times in uræmia, alcoholism, unilateral sweating, hyperidrosis, diphtheria, and membranous croup, and with the exception of sharp ephemeral pain at the neck of the bladder, and in the course of the urethra which two male patients complained of, have met with no unpleasant effects—no cephalalgia, nausea, or vomiting. It has been extravagantly extolled in diphtheria and membranous croup by some German writers, but I have found it utterly worthless in these diseases.

I have ventured to submit such little experience with the drug for the reason that its employment as yet has been comparatively limited, and consequently even meagre therapeutical records may have an interest which they would not have when pertaining to an agent in common use.

DISINFECTANTS.

PRELIMINARY REPORTS OF THE COMMITTEE ON DISINFECTANTS OF THE AMERICAN PUBLIC HEALTH ASSOCIATION.

XIX.

REPORT OF SOME EXPERIMENTS ON BURNING SULPHUR IN CLOSED ROOMS. MADE UNDER THE DIRECTION OF

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BY W. H. KENT, PH.D., CHEMIST.

ABSTRACT.

THE physical changes which sulphur undergoes in the process of combustion are described as follows in Lunge's standard work on the manufacture of sulphuric acid.

"Sulphur melts at 111.5° C. (232.7° Fahr.) and

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forms a thin light yellow liquid which, on being more strongly heated, becomes darker and thicker; at 250° to 260° C. (482° to 500° Fahr.) it is nearly black, and so viscid that it does not run out when the vessel is upset; at a still higher temperature it becomes thinner again, keeping its brown color; and at 440° C. (824°F.) it boils, forming a brownish-red vapor, but it begins to volatilize before boiling.

"This is by heating out of contact with the air. When heated in the air the same changes take place until the temperature of combustion is reached, which, according to Lunge, is 260° C. (482° F.). It then takes fire and burns with a purplish-blue flame, forming SO_2 and giving out 2221 units of heat."

In our experiments a room entirely enclosed by wood was first used. The pine boards forming the walls, ceiling, and floor were generally matched, but in spite of continued calking with rags its condition as to tightness was not satisfactory; however, three experiments with burning sulphur were performed, and a part of the desired results obtained. It was then abandoned with the idea that the results with regard to the amount of sulphur which it is possible to burn in a given space would be of no value. We will call this *Room A*, and the small bedroom with plastered walls which was afterwards used, *Room B*. Room A was 16½ feet long, 8⅓ feet wide, and 11 feet high, and contained, therefore, 1512.5 cubic feet (42,831.8 litres, or 42,8318 c. metres). In one side was a window about 2 by 2½ feet; in the adjacent side nearer the floor was also a single pane of glass about 8 by 10 inches.

Experiment No. 1, Room A.

In a large tin pan holding about 12 quarts was placed an iron kettle holding 5½ quarts, and supported in the pan by an earthen plate; in the kettle were placed 6 pounds of broken brimstone and flowers of sulphur, and surrounding it in the pan were 8 litres (about 8 quarts) of water.

The kettle stood in the water, therefore, to the extent of about half its height. In the water was placed a maximum and minimum thermometer. Suspended on a line in about the centre of the room were 116 samples of various kinds of cloth, the coloring matters of which had been determined by Dr. O. Grothe. The samples consisted of:

18 samples of all wool dress-goods (Sicilian cord) dyed with various combinations of logwood black, logwood brown, picric acid, indigo carmine, and Bordeaux.

8 samples of silk dress-goods (silk cord), which were also variously dyed with Bismarck brown, nigrosine, alkali blue 2 B, Bordeaux, tropæline 3 O No. 2, and roacelline.

11 samples of domestic calicoes printed in many figures with catechu brown, logwood black, logwood blue, alizarine red, aniline yellow, and aniline blue.

12 samples of French satins also printed with aniline black, aniline yellow, alizarine red, indigo, logwood black, fiset wood, eosine, nigrosine, Bordeaux, and alkali blue.

24 samples of Scotch gingham colored with different combinations of Bismarck brown, logwood black, logwood blue, logwood brown, indigo, aniline blue, aniline yellow, alizarine red, alizarine rosa (tin salts), catechu brown, tropæline O (chrysoine), turmeric, tropæline O 4, fiset wood, and vesuvine.

24 samples of domestic cambrics variously printed with aniline blue, aniline yellow, logwood black, logwood blue, logwood brown, alizarine red, catechu brown, indigo, indigo carmine, naphthaline yellow, induline, and wood blue with chromine.

3 samples of oriental flannels dyed with induline, malachite green, and Bordeaux.

16 samples of domestic flannels dyed with Bordeaux, Victoria yellow, fuchsine, methyl violet, logwood black, alizarine red, induline, and brilliant blue (alkali blue 5 B).

Duplicate samples of each of these were retained for comparison. The sulphur was ignited with burning alcohol, and the room closed as soon as possible.[1]

At 8.30 P. M. the room was opened.

Of the 6 lbs. of sulphur introduced 5 lbs. 9 oz. were burned; the remaining 4 oz. consisted of sulphur, sulphide of iron, and impurities. Owing to the reduction of temperature, it would not in any case be expected that the sulphur would be completely consumed.

Of the 8 litres of water introduced in the pan, 6.39 litres remained; 1.61 litres were, therefore, evaporated. The temperature of the water which, at the beginning, was 71° F., had risen to 158° F.

The samples of cloth were then arranged in series by the side of the original and exhibited to a number of persons, some of whom were experienced dry-goods salesmen and were really experts in judging the qualities of fabrics. The general opinion was that as to strength of fibre, no change in any case could be discerned; that as to color, one sample of Sicilian cord, colored with indigo and induline, and one sample of domestic flannel colored with brilliant blue (alkali blue 5 B) were very slightly faded; that one sample of oriental flannel colored with malachite green was not quite so bright; that one sample of oriental flannel and one sample of domestic flannel, each colored with induline, were somewhat faded; that with the remaining 111 samples there was no perceptible change. It is also observed that among the flannels only two were colored with induline, and that these, as above expressed, were the most affected, and that the only piece of woollen dress-goods which contained induline was the one which was very slightly faded.

Experiment No. 2, Room A.

In this experiment an attempt was made to reach the limit of sulphur which might be burned in the room. 32 lbs. 5 oz. of sulphur were placed in two kettles; one kettle with 16 lbs. 4 oz. placed in the tin pan as before, was surrounded with 8 litres of water, the other with 16 lbs. 1 oz. was placed in a

[1] *Note.*—As it has been asserted that sulphur fumigations will not even kill insects, we suspended in the room, before the larger window, a wire fly-trap containing about a dozen flies, another with six or eight ants, and another with half a dozen croton bugs (Ectabia Germanica). The time necessary for killing these insects was observed through the window. All flies were dead in 22 minutes; all ants in 24 minutes; and all croton bugs in 25 minutes.

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wooden tub, and around it were 25 litres of water. In each case fully one-half of the kettle stood below the surface of the water. There was also suspended in the room, the same as before, a set of samples of the same fabrics from which those before used were taken, numbered the same, and for distinction marked with the letter "Y." The thermometer was also hung before the window, the sulphur ignited with alcohol and the room closed as before.

At 9 P. M. the sulphur ceased burning. On the following day the room was opened. The sulphur fumes had escaped so that it could be entered immediately. Of the 16 lbs. 4 ozs. of sulphur placed in one kettle, 6 ozs. remained; of the 16 lbs. 1 oz. placed in the other, 9 ozs. remained; or of the 32 lbs. 5 ozs., 31 lbs. and 6 ozs. were burned. The remaining 15 ozs. consisted of sulphide of iron, sulphur, and impurities. Since the room contained about 1500 cubic feet, the amount burned was nearly 21 lbs. per 1000 cubic feet. The water surrounding the kettle was found to contain much sulphuric acid. The amount consumed was largely in excess of that required to consume the oxygen of the air; and, as the sulphur was practically all consumed, the room must be considered as not sufficiently tight for the experiment.

The amount of sulphur required to consume completely the oxygen in 1000 cubic feet of air, as found by calculation, is 15,577 lbs. Of course, the low temperature and the highly diluted form the oxygen attains would both tend in practice to reduce greatly this amount.

Vallin, in his *Traitè des Dèsinfectants* (p. 243), states that, experimentally, M. Martz was able to burn only 68 grammes per cubic metre, or about 4.2 lbs. per 1000 cubic feet; and that Czernicki was able to burn, in a large room, 300 grammes per cubic metre, or 18.7 lbs. per 1000 cubic feet. The room, in the latter case, was undoubtedly not tightly closed, as a comparison of his results with the theoretical amount will show. As to the effects on the fabrics in this experiment no difference could be noticed from that of the experiment before given. The samples of cloth in both experiments are arranged in convenient form with those of the original, and may be examined at the office of the Department of Health in Brooklyn.

Experiment No. 3, Room A.

It having been asserted that burning sulphur is not always effective in killing insects, and especially flies on the ceiling, another experiment was made to ascertain with more certainty whether flies are killed uniformly throughout the room, where the usual amount of 3 lbs. of sulphur per 1000 cubic feet is burned. To this end a window was placed next the ceiling by the upper front left corner of the room, and another by the diagonal corner of the left side next the floor. A fly trap with a number of flies was placed by each window next the ceiling and floor. Flies in traps were also placed at the upper back right corner and on the floor by the diagonal corner of the right side, one was also placed on the centre of the floor, and another on the centre of the ceiling, and one by the window in the centre of the left side. There were also a number of flies, perhaps fifty, confined loose in the room, going where they chose. An iron kettle, with 4 lbs. and 9 ozs. of sulphur, was placed in water in the large pan, the sulphur ignited, and the room closed as before. The flies next the ceiling, as observed from the window at the upper front left-hand corner were all dead in twenty-three minutes; those by the large window on the left side also in twenty-three minutes; those on the floor at the back left-hand corner were dead in fifty minutes; while some of the flies loose in the room, that had collected mostly by the small window in front near the floor, lived for one hour and forty-five minutes.

The sulphur fumes being heated evidently rose at first to the upper part of the room. The room was then immediately opened, the sulphur extinguished, and as soon as the room could be entered it was found that in all those portions of the room which could not be seen from the windows all flies were dead. It would seem, therefore, that when the flies are simply confined in a room not especially tight that they were able by the greater liberty afforded them to withstand the action of the sulphur fumes much longer than when confined to a particular locality in traps. By weighing the kettle and the remaining sulphur it was found that four pounds of sulphur were burned.

Experiment No. 4, Room B.

This room, provided with an ordinary window and door, measured as follows: 8 ft. 2 in. long, 6 ft. 2 in. wide, and 7 ft. 7 in. high, containing, therefore, 375 cubic feet. All crevices were thoroughly calked. In an iron pot were placed 16 lbs. 3 oz. sulphur. This was placed in the above described tin pan, and surrounded by nearly 10 litres of water. A maximum and minimum thermometer was hung on the wall showing a temperature at the beginning, of 76° F. In order to ascertain whether sulphuric acid would be formed, and whether the cloud of smoke arising from burning sulphur was due to the formation of this acid, or to sublimed sulphur, or both, a pane of glass 7 x 12 in. was thoroughly cleaned, wiped dry with a clean cloth and supported horizontally in the middle of the room by a clean glass support. The sulphur was ignited, the door thoroughly calked, and it being Saturday, P.M., it was left to take its course. The sulphur continued to burn for about 12 hours. When opened on Monday the atmosphere was not endurable, The temperature of the room had risen to 122° F. (50° C.), as shown by the maximum thermometer. Of the 16 lbs. 3 oz. sulphur introduced 2 lbs. 2 oz. had been burned, or at the rate of $5\frac{3}{8}$ lbs per 1000 cubic feet. The pane of glass was found to be covered with a fine dew-like deposit, and its extremely sour taste indicated that it must contain sulphuric acid. This was carefully washed with distilled water into a clean flask. The washings unmistakably held sulphur in suspension. The amount of sulphur deposited on the pane of glass was determined after filtering from the H_2SO_4 solution by oxidizing with nitric acid, precipitating and weighing as $BaSO_4$. From this the amount of sulphur deposited on the glass plate was found to be 0.0014 gm. Since the surface of both

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sides of the glass pane was 168 sq. in., and the surface of the ceiling and floor 14,504 sq. in., the amount of sulphur deposited on the ceiling and floor would be 0.1208 gm. Assuming that it would be deposited on the walls at the same rate, which may not be entirely the case, there would be deposited on the walls, ceiling and floor 0.3817 gm. or 5.88 grains of sulphur. This amount, though not large, is sufficient to account for the slightly dingy appearance of a room immediately after fumigation, and in part also for the cloud of smoke that arises from burning sulphur. The sulphuric acid in the filtrate as above obtained was precipitated as $BaSO_4$ after the addition of HCl and the $BaSO_4$ filtered and weighed; the H_2SO_4 calculated therefrom was 0.0848 gm. The amount deposited on the ceiling and floor, as calculated from this amount deposited on the pane of glass, is 7.3210 gms., and assuming as above that it would be deposited at the same rate on the walls of the room there would have been formed 15.2 gms., or about 234 grains of sulphuric acid.

Experiment No. 5, Room B.

It being sometimes the practice to place the pot of sulphur on dry ashes instead of in water, the question now arises as to whether by so doing there is the same amount of sulphur burned, and also whether the same amount and relative proportion of sulphuric acid and sulphur are set free as found in the preceding experiment. In order to ascertain these points the following experiment was arranged.

The large tin pan heretofore used was nearly filled with ashes and placed near the middle of the room; on the ashes was placed an iron kettle with 8 lbs. of sulphur. An ordinary pane of glass, 9 by 12 in., was thoroughly cleaned and horizontally supported about 1½ ft. from the floor with a clean glass support. On the wall was also a maximum and minimum thermometer showing a temperature at the beginning of the experiment of 80° F. The sulphur was ignited with burning alcohol and the room thoroughly closed. On opening the room the following day, all smoke had subsided, but sulphur fumes were so strong that it could not be immediately entered. By weighing the pot of remaining sulphur it was found that 2 lbs. 7 oz. had been consumed, or at the rate of 6½ lbs. per 1000 cubic feet, which, as will be noticed, is ⅝ lb. per 1000 cubic feet more than was burned when the kettle was placed in water. Of course this is due to the fact that the water takes some heat from the kettle and its contents and therby reduces its temperature. The thermometer on the wall showed a minimum temperature of 73° F. and a maximum temperature of 113° F. On the glass plate was the same dew-like deposit as before, but showing the presence of sulphur much more distinctly. The deposit was carefully removed with distilled water to a glass receptacle, the sulphur filtered therefrom, oxidized with nitric acid, and precipitated with barium chloride. By weighing the precipitate of $BaSO_4$ and calculating the sulphur, it was found that 0.0228 gramme of sulphur had been deposited on the glass plate. Calculating from this the amount deposited on the ceiling and floor would be 1.5301 grammes. If deposited on the walls at the same rate the entire amount formed in the room would be 4.8352 grammes (74.5 grains). The sulphuric acid in the filtrate from the sulphur thus obtained was precipitated and weighed as $BaSO_4$, from which it was ascertained that 0.1209 gramme H_2SO_4 had been deposited on the plate, or 8.1145 grammes on the ceiling and floor. Calculating as before the total amount deposited in the room would be 25.6397 grammes, or 394.85 grains.

A CASE OF HODGKIN'S DISEASE; WITH AUTOPSY.[1]

BY J. B. MARVIN, M.D.,

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FOUNTAIN D., colored, aged 35 years, laborer in a tobacco factory, was admitted into my ward at the City Hospital March 3, 1885. He complained of a constant cough, profuse diarrhœa, and great weakness. He laid most stress on his excessive weakness, assigning this as the reason for ceasing work and seeking admission to the hospital.

On examination, the cervical glands on both sides and post-cervical glands were found enormously enlarged, hard, and painless. The neck was stiff, the head rotated with difficulty. The largest mass of glands was on the back of the neck, they elevated the occiput, depressed the chin, and rotated the head to the left, giving the patient a peculiar carriage and expression. The glands in the axillæ and groins were also enlarged, but to a much less degree than those of the neck, hard and painless. There was pain over the abdomen, but no glandular enlargement could be detected. The cough was due to bronchitis. The pulse was quick, feeble, and compressible. Anæmia was marked; the mucous surfaces of the lips, tongue, and conjunctivæ were very pale. Emaciation was excessive, especially of the trunk muscles.

The patient states that about two years ago he had a sore on the penis, followed by eruptions on the skin and sore throat. One year ago he was admitted into the hospital with some secondary manifestations, pains in legs and shoulders, stiff neck, and some enlargement of the glands on the back of the neck. Several months after this the glands about the neck began to enlarge, and he began to lose flesh and strength. None of the glands have ever suppurated. No scars are visible. His blood is pale and watery; examined under the microscope, the red corpuscles were pale, many crenated, and diminished in number; the white corpuscles were increased fourfold. The spleen was not enlarged. The case was diagnosed Hodgkin's Disease, or Pseudo-leukæmia.

Progress of the Disease.—The diarrhœa yielded to treatment; though constantly manifesting a tendency to recur. Cough proved very troublesome, was attended with dyspnœa, especially at night and on exertion. There was a slight, irregular fever. No changes of importance for two weeks, when patient complained of great pain and stiffness in right arm and hand, and right leg; this gradually developed

[1] Read before the Medico-Chirurgical Society.

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into partial motor paralysis of these members, more marked in arm than leg. Fever increased, with evening exacerbation, very noisy and wakeful at night, appetite fair, and, with assistance, is able to be out of bed and move around the ward. Weakness increased, paralysis more marked, though not complete, no face or eye symptoms. Mind clear, except at night, when a tendency to noisy delirium was manifested. He was now so weak as to be confined to bed, fever continuous, pulse and respiration greatly increased in frequency. Marked pigmentation was now noticed on dorsal surfaces of hands and forearms, forehead, and various portions of the body, the black discoloration contrasting strongly with the dusky-gray, anæmic appearance of the rest of the body.

A few days before death a large bedsore developed over the sacrum; also, a severe stomatitis.

The patient died on April 11th, five and one-half weeks after ceasing work, and three weeks after the appearance of paralysis. He never complained of headache or photophobia. Great weakness and pains in arm and leg alone seemed to distress him. His morning temperature was seldom over 102° F., occasionally it would fall to normal, only to rise in the evening. The evening temperature frequently went to 104° F. The highest temperature occurred ten days prior to death, when it reached 105.2° F., with a pulse of 148, and respiration 48.

In addition to the usual tonic treatment, the patient received increasingly large doses of iodide of potash, hoping that possibly it might do good, as syphilis seemed to be the cause of the disease.

Eighteen hours after death, I made the autopsy. The cervical and post-cervical glands were removed; they were firm, lobulated, reddish-gray in color, in places there was evidence of periadenitis.

On opening the thorax, the mediastinal, cardiac, and bronchial glands were greatly enlarged, very firm, yellowish-white in color. The pressure of the glands probably caused the bronchitis and dyspnœa.

The lungs were healthy, except the base of the right lung, in which was a firm white nodule about the size of a marble. The pericardium contained four ounces of clear serum; the heart was pale and flabby. The liver contained numerous small white nodules. The spleen weighed nine ounces, and contained several soft, white nodules about the size of a pea. The kidneys were not affected. The mesenteric glands were greatly enlarged, many of them being very soft, and on section, revealed thick, creamy matter. The retroperitoneal glands were also greatly enlarged, extending to the pelvis. The suprarenal capsules were healthy. The great size of the retroperitoneal glands causing pressure on the solar plexus probably caused the pigmentation of the skin. The inguinal and axillary glands were not involved to the same extent as the glands in the other regions mentioned.

On removing the calvarium, evidences of slight meningitis were discovered. The brain, on section, appeared pale and bloodless; otherwise it was healthy.

LOUISVILLE, KY.

MEDICAL PROGRESS.

CHRONIC ALCOHOLISM.—Messrs. Dujardin-Beaumetz and Audigé have communicated to the Institute the result of their researches on chronic alcoholism. From June, 1879, to July, 1883, eighteen pigs were experimented upon, each of them with a different sort of alcohol, such as ethylic and methylic alcohol, alcohol prepared from corn, beet-root, and potatoes (pure and impure), absinthe, and tincture of absinthium. These were given daily with the food, in the dose of one to one and a half grammes of alcohol, two grammes of absinthe, and two centigrammes of the tinctura absinthii for one kilogramme of the weight of the body. The symptoms of intoxication by alcohol were sleepiness and prostration, vomiting of bile and glairy mucus, diarrhœa, and sometimes intestinal hemorrhage, dyspnœa, tremor and incomplete paralysis of the hind legs. Some animals which were killed or died during the experiment were examined by Prof. Cornil. He found congestion of the digestive tube, sometimes causing hemorrhage, congestion and inflammation of the liver, but without cirrhosis, congestion of the lungs, and finally, atheroma of the large bloodvessels, especially the aorta. The animals were not emaciated, but presented numerous extravasations of blood into the subcutaneous and muscular tissues. Impure alcohol had a much more rapid and deleterious influence than rectified alcohol. The symptoms caused by absinthe and tinctura absinthii were excitement, and spasmodic contractions of the muscles and cutaneous hyperæsthesia, but true epilepsy was never noticed.—*British Medical Journal*, August 22, 1885.

REMEDIAL EFFECT OF SUBNITRATE OF BISMUTH IN FETID PERSPIRATION OF THE FEET.—VIEUSSE, in *Le Moniteur Thérapeutique*, June, 1885, recommends the subnitrate of bismuth in the treatment of fetid perspiration of the feet, and cites the following conditions in which the remedy is successfully applied:

1. Profuse perspiration of the feet, under whatever form presented, whether manifested in a simple hypersecretion of sweat, or accompanied by pain, or manifested in condition of abundant and fetid transpiration, is easily cured by the application with slight friction of subnitrate of bismuth upon the diseased parts.

2. In opposition to the opinion generally embraced, according to which the suppression of exaggerated perspiration may produce numerous accidents of metastasis, observation shows that the cure of this affection has not been followed by unfavorable results, and that if these are observed they should be attributed to other methods of treatment hitherto employed.

3. In the cure of this disease, subnitrate of bismuth appears to exercise a purely local action, rendering the superficial cuticular structures firmer, and more resistant.

The remedy, perhaps, exerts an action also upon the sudoriparous glands and sebaceous follicles, changing the quality and quantity of their products, and possibly, as a result of the changes produced in the part with which it comes in relation, modifies even profoundly the capillary circulation.

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4. In certain cases the remedy suppresses only temporarily the profuse perspiration of the feet, but causes the fetid odor, as well as the pain, which is the consequence of the exaggerated secretion, to disappear permanently.—*Rivista Internazionale di Medicina e Chirurgia*, May and June, 1885.

ON THE SIGNIFICANCE OF OSSEOUS LESIONS IN THE DIAGNOSIS AND TREATMENT OF INHERITED SYPHILIS.—A paper on this subject, by DR. R. LOMER, of Berlin, appears in the *Zeitschrift für Geburtshülfe und Gynäkologie* (Band X. Heft 2). It refers to the disease of the bones described by Wegner. Dr. Lomer holds that the presence of these changes in a well-marked form is proof of syphilis; and, applying this test, comes to the conclusion that the large majority of cases of premature labor are due to this disease. General practitioners, in Dr. Lomer's opinion, know very little about these bone lesions. They are to be demonstrated by exposing the femur and making a longitudinal section of it. In a healthy bone the junction of cartilage and bone is a simple line, either straight or undulating, but sharp and well-defined. In a syphilitic bone it is a broad layer, from which irregular processes project into the cartilage. The epiphysis is either quite loosened, or there are deep fissures in the bone below the line of ossification. In some cases these changes can be easily seen with the naked eye, but in others they may be so slight as to need microscopical examination of carefully prepared sections. Although this disease indicates syphilis, yet a normal condition of the bone is not proof of the absence of syphilis. Dr. Lomer puts before his readers the following generalizations, based on the examination of forty-three fœtuses which had died in utero. When the bone disease is well-marked, the liver and spleen are abnormally large. It makes no difference in the degree of the changes present, whether the syphilis is derived from one or both parents, whether in the parent the disease is one year old or ten, whether secondary symptoms have persisted or not, whether the parent has been treated or not, or whether the child be large or small. Syphilitic fœtuses differ in appearance from non-syphilitic. The latter are brown and mummified, the former flesh-colored and more œdematous. In the non-syphilitic the mother can commonly assign a date for the infant's death, and the weight of the fœtus corresponds to the period indicated by her statement. This is not the case with the syphilitic; and in them the placenta is commonly unusually heavy in proportion to the weight of the fœtus.—*Medical Times* (London), August 22, 1885.

TREATMENT OF PNEUMONIA BY LARGE DOSES OF DIGITALIS.—DR. CHRISTE BUICLI, in reviewing a clinical study of the effects of large doses of digitalis in the treatment of pneumonia, made by M. PETRESCU, in the military hospital of Bucharest, gives a table of eight cases treated by the latter—all successfully—and appends the conclusions reached by the author concerning the efficacy of the drug in this disease. Dr. Petrescu, in a review of 350 cases treated by this method, shows that the duration of the disease was shortened, and in every case the intensity of the fever was progressively diminished, while the tolerance of enormous doses of digitalis was also attained. His conclusions are:

1. That digitalis in pneumonia produces a certain and immediate antiphlogistic effect when administered in therapeutic doses.

2. The therapeutic dose in this disease is from 60 to 90 grains of the leaves, during twenty-four hours, for a limited number of days.

3. The treatment of pneumonia by digitalis is up to the present time the only method which has reduced to a minimum the mortality consequent thereto.—*Le Progrès Médicale*, August 15, 1885.

REMOVING MICROBES FROM WATER.—PROFESSOR FRANKLAND has, we read in the *Journal of the Society of Arts*, recently made a series of experiments on the relative efficiency of filtration, agitation with solid particles, and precipitation, as a means of removing microorganisms from water. His method was to determine the number of organisms present in a given volume of the water, before and after filtration. The filtering materials were green sand, silver sand, powdered glass, brickdust, coke, animal charcoal, and spongy iron. These materials were all used in the same state of division, being made to pass through a sieve of forty meshes to the inch. Columns six inches in height were used. It was found that only green sand, coke, animal charcoal, and spongy iron wholly removed the microorganisms from the water filtered through them, and that this power was lost in every case, after the filters had been in operation a month. With the exception of the animal charcoal, however, all these substances, even after being in operation for a month, continued to remove a very considerable proportion of the organisms present in the unfiltered water; and in this respect coke and spongy iron occupied the first place. Water containing microörganisms was also agitated with various substances in the same state of division as above mentioned, and after subsidence of the suspended particles, the number of organisms remaining was determined. A gramme of substance was in general agitated with 50 cubic centimetres of water for a period of about 15 minutes. It was found that a great reduction in the number of organisms could be produced in this way; and the complete removal of all organisms by agitation with coke is especially to be remarked. Precipitation by "Clark's process" also showed that it affords a means of greatly reducing the number of these organisms in water. Dr. Frankland concludes from his experiments, that, although the production in large quantities of sterilized potable water is a matter of great difficulty, involving the continual renewal of filtering materials, there are numerous and simple methods of treatment which secure a large reduction in the number of organisms present in water.—*British Medical Journal*, August 15, 1885.

PREGNANCY AFTER DOUBLE OVARIOTOMY.—SCHATZ, in the *Centralblatt für Gynäkologie*, records the case of a woman who became pregnant after the operation of double ovariotomy. The woman for a long time had suffered abdominal pain, and the operation was performed February 20, 1880. The left ovary was found to be in a condition of fibroid degeneration, and was completely removed together with the external portion of the corresponding Fallopian tube. The right ovary also showed signs of cystoid degeneration, and was re-

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moved, with the exception of a small band—at the most only one-twelfth of an inch wide. The right Fallopian tube remained intact. Cure resulted without incident, save the occurrence of an abscess formed in the path of one of the sutures. A month after operation violent pain in the hypogastrium and thigh was experienced, in lieu of the menses; but finally, on June 20, menstruation occurred and continued up to the time of the patient's marriage, April 23, 1884. The symptoms of pregnancy were well marked at the beginning of September, and accouchement at term occurred May 12, 1885, after thirty-six hours' labor.

LICENSES TO PRACTISE MEDICINE IN JAPAN.—The *Supplement to the Transactions of the Sei-i-Kwai* for May, 1885, contains a copy of the regulations for the examination of candidates for licenses to practise medicine. The Minister for Home Affairs is to hold examinations twice yearly, six months' notice of the time and place being given. At the time of the examination, he is to appoint an examining committee selected from hospital physicians, or from physicians and chemists of known medical knowledge; a dentist may also be appointed in the case of examinations for licenses in dentistry. A manager is to be appointed to superintend the examinations. The examinations for the license to practise medicine are divided into two parts, unless the candidate can take the whole examination at once. For the license in dentistry, there is but one examination; the subjects being Dental Anatomy and Physiology, Dental Pathology and Practice, Dental Medicine, Dental Mechanics, and a practical examination. The subjects of the two examinations for the license to practise medicine are: first, Physics, Chemistry, Anatomy, and Physiology; second, Theory and Practice of Surgery and of Medicine, Materia Medica, Ophthalmology, Obstetrics, and Clinical Observation. A course of study of not less than a year and a half's duration must be pursued before the first examination, and an additional course of like duration before the candidate can be admitted to the final examination. The answers to the questions are to be given in writing; but, under certain circumstances, they may be given orally. Candidates who pass are to receive a certificate, attested by the manager and the examining committee. Rejected candidates are not admitted until after a lapse of at least six months. The fees are, for the primary examination, three *yen* (about 11 shillings); for the final examination, five *yen;* and for the examination for license in dentistry, five *yen*. The fees are not to be refunded in case of inability to attend or complete the examination. —*The British Medical Journal*, August 29, 1885.

TUBERCULAR INFECTION THROUGH SEXUAL INTERCOURSE.—FERNET, at a meeting of the Société Médicale des Hôpitaux, January 7, 1885, in a paper upon the possibility of the occurrence of tubercular infection through sexual intercourse, summarized his views as follows:

1. Primitive genital tuberculosis may probably be caused by direct contagion in sexual intercourse.

2. The indolent blenorrhagic discharges sometimes observed in certain men, subsequent to sexual relations, especially when not consecutive upon true blenorrhagia, should be regarded with suspicion. Some of the discharges appear to be of a tubercular nature. The same may be said of certain forms of leucorrhœa in woman. A search for the bacillus tuberculosis must decide the nature of these discharges.

3. Sexual relations with subjects affected with genital tuberculosis expose to direct contagion, and present a risk which it is wise to avoid.

4. A principal danger of genital tuberculosis is the risk of general secondary infection. The cure of such genital tuberculosis should be attempted by all known remedial agencies, and even by surgical interference.—*Revue des Sciences Médicales*, July, 1885.

THE CUMULATIVE ACTION OF DIGITALIN AND HELLEBORIN.—M. VAN DER HEIDE, in endeavoring to confirm the cumulative action of digitalin and helleborin by experiments upon animals, has reached the following conclusions, some of which favor, while others oppose the reality of such action in these drugs. He found

1. That with very minute doses (one-eighteenth of a grain) administered in succession at intervals of considerable length (one day), he has succeeded in killing dogs of large size.

2. A dose not fatal under ordinary circumstances frequently suffices to kill animals already under the influence of small doses for a considerable period.

3. The slowing of the pulse persists a long time after the administration of the final dose, as has already been noted by Sandras (1883) concerning digitalis.

4. The maximum effect upon the heart is obtained subsequent to the administration of the final dose when several equal doses are administered at greater or less intervals.

5. Toxic effects which a given dose is unable to produce are frequently observed when such dose is repeated a sufficient number of times, and at sufficiently great intervals.

On the other hand, Van der Heide has observed

1. That toxic symptoms disappear under the prolonged administration of digitalin or helleborin in uniform doses.

2. That doses which at first strongly influenced the frequency of the heart, lost much of their effect according to the length of time during which the experiments were prolonged.—*Gazette Médicale de Paris*, August 22, 1885.

HYSTERIA IN MALES.—At a recent meeting of the balneological section of the Gesellschaft für Heilkunde, Berlin, DR. JOSEPH, of Landeck, read a paper upon this subject, describing two cases. An apprentice in a house of business, "of good family," had an attack of acute rheumatism when eighteen years of age. Convalescence was protracted, and followed by great distention of the stomach, hiccough, and general clonic spasms of the voluntary muscles, forcing the trunk suddenly into all manners of attitudes, and causing obstruction to deglutition, etc. After treatment at a hydropathic establishment, all these symptoms disappeared, but were followed by ptosis and right motor hemiplegia, with hyperæsthesia on both sides of the body. The convulsions returned after the paralytic symptoms had abated. Dr. Joseph then examined the patient, who appeared to be robust, muscular, and ruddy complexioned. He stared suspiciously at bystanders, and was very excita-

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ble. He walked slowly, and with the aid of a stick, dragging the right foot. Percussion of the thorax caused opisthotonos; the six lower dorsal vertebræ were especially sensitive. The appetite had become very good, and globus was frequent. The bowels remained constipated for days or even weeks. No history of sexual abuse of any kind could be traced. After ten weeks of hydropathic treatment, he left Landeck apparently cured. It was found that the patient's grandfather, who had recently died, aged 78, had suffered for fifty years from hysterical fits precisely similar to those observed in young women.

The second case was that of a robust horse-dealer, aged 38, who had a flourishing business in Prussian Poland. He had served for three years in a German cuirassier regiment, and was father of a large family. Four years before consulting Dr. Joseph, he caught cold, and aphonia followed. A little later, clavus was complained of, and then he began to have convulsive attacks, without loss of consciousness, but with loss of power of speech. These attacks were often followed by vomiting. Then, when he applied to Dr. Joseph, he became subject to globus, hoarseness without objective laryngeal symptoms, and great mental irritability. The physician witnessed a fit. The patient, a very tall, strong man, lay stretched out in bed, with clonic convulsions of all his extremities; he was quite conscious, but could not speak. There was constant hyperæsthesia over the interscapular region, the lower cervical and upper dorsal vertebræ, but not in the iliac region. The patient was relieved by hydropathic treatment. There was no family history of hysteria or epilepsy.— *The British Medical Journal*, August 29, 1885.

INFECTIOUS PERITONITIS IN VIRGINS.—DR. SNYERS has described in the *Annales de la Société Med.-Chirurg. de Liège* (*Journal de Méd. et de Chir. Prat.*, 1884), two interesting cases, which seem to show that the virus of erysipelas can cause, in women who have never had intercourse, an acute form of peritonitis, similar to that observed in puerperal cases. A young woman (a virgin), aged 18, was suddenly seized with symptoms of acute peritonitis five weeks after a servant in the house had been taken ill with erysipelas of the face; death ensued in thirty-six hours. Shortly afterwards, the brother of the young woman had an attack of erysipelas on the arm; this did not cause much anxiety at the time; but, a fortnight later, the second sister, aged 20 (also a virgin), was seized with the same symptoms as the first, and died in less than two days. At the *post-mortem* examination, Dr. Firket failed to discover any local cause by which the origin of the inflammation might be explained. The spleen was much swollen, and the blood had the same appearance as in cases of infectious diseases.—*The British Medical Journal*, August 29, 1885.

REMOVAL OF TUMORS OF THE BLADDER.—DR. ANTOINE SABASTIER, at the conclusion of a critical review of the operation for removal of vesical tumors, founded on observations made upon forty-seven cases removed either by hypogastric or perineal section, summarizes his views concerning the condition and the indications for operation as follows:

1. Every tumor of the bladder having almost certainly a fatal prognosis, surgeons should be impressed with the necessity of early operation when the disease exists.

2. When the diagnosis is uncertain, membranous urethrotomy should be performed as an exploratory operation.

3. Small tumors developed over the trigone of the bladder, and of a benign nature, seem best removed, in view of their radical cure, through the perineum by membranous urethrotomy, the median or lateral operation.

4. Large tumors of the bladder, multiple and extended, and situated in the superior vesical hemisphere, and of a malign nature, should be operated on by the hypogastric section.

5. In those cases where radical cure is impossible, incomplete ablation almost always affords considerable relief. Such palliative operations should be preferably done in the suprapubic region and a permanent urinary fistula established.—*Revue de Chirurgie*, August, 1885.

COCAINE IN SEA-SICKNESS.—In a preliminary report on some observations upon "cocainum muriaticum," DR. MANASSEIN, of St. Petersburg, gives an interesting account of the employment of the drug in sea-sickness (*Berl. klin. Wochensch.*, August 31st). He had read of its value in uncontrollable vomiting of pregnancy, and thought it might be useful in sea-sickness. He, therefore, went this summer on a sea voyage in order to test its efficacy. Among his fellow passengers were two, a man and woman, who were especially prone to the malady. He administered to each of them every two or three hours a teaspoonful of the following solution: Muriate of cocaine 0.15, rectified spirits of wine (in sufficient quantity), and distilled water, 150.0, beginning the administration on starting. That it had a prophylactic effect seemed clear, for in spite of very rough weather for a period of forty-eight hours, both the individuals were for the first time in their lives free from sickness, and enjoyed a very good appetite the whole time. To a child six years old, who began to be attacked with sea-sickness on rising in the morning, the treatment was so effectual that it was able to play about during the day in spite of the storm. The child took one teaspoonful in two doses during the first half-hour, and then half a teaspoonful every three hours. Another case was that of a girl, eighteen years of age, who had been sick for twenty-four hours before the drug was given. The case being a severe one, she had a double dose every half-hour, with "truly magical effect;" for after the second dose the patient was able to assume a half-sitting posture, and after the sixth dose she jested and began to complain of hunger. During the rest of the voyage she remained well, although there was much rolling of the vessel. Similar good results attended the use of the drug in three milder cases; and had it not been that his supply ran short Dr. Manassein would have been able to make more extended observations. Still, from the experience of these few cases he thinks it justifiable to infer that in the drug we have a certain and harmless remedy against sea-sickness. In the same communication he mentions that he had found "cocainum muriaticum" of great service in arresting the collapse of two severe cases of simple cholera, and thinks it desirable to try its action in cases of Asiatic cholera.—*Lancet*, September 5, 1885.

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THE CLINICAL SIGNIFICANCE OF PEPTONURIA.

ONE of the first to avail himself of the accurate method of Hofmeister, for the determination of peptonuria, detailed in a recent issue of THE NEWS, was Maixner. His most important conclusion was that the presence of peptone in the urine points to suppuration and the simultaneous disintegration in the economy of pus corpuscles.

A little later, v. Jaksch published the result of his investigations on peptonuria, based on the study of some hundreds of cases. He confirmed in general Maixner's earlier conclusions, he never once found peptonuria in any of the acute infectious diseases—typhoid, typhus, and intermittent fevers, measles and scarlatina,—and out of three cases of phosphorous poisoning which he studied, it occurred in one. He also found it in scorbutus attended with disintegration of colorless corpuscles, and called it "hæmatogenous" peptonuria. In 1882, Poehl, besides finding peptonuria in the last stages of the inflammatory process, asserted that all albuminous urine of acid reaction contains peptone, which diminishes or entirely disappears when it becomes neutral or alkaline. On the contrary, in acid urine, non-albuminous but peptone holding albumen appears when the reaction becomes neutral or alkaline.

In 1884, Fenomenow, in Russia, published a paper in which, besides confirming Maixner's results, he called attention to the possible origin of peptone from albumen, in which, first confirming the experiments of Eichwald, made as far back as 1864, he showed, also, that such morphological constituents of the urine as pus, blood and epithelium, exerted, to a certain degree, a fermentative action upon albuminous urine of acid reaction, resulting, when they are abundantly present, in the appearance of peptone. Indeed, he asserted that peptone is only found where these cellular elements are abundant. In this way Fenomenow explained the excretion of tube casts, which, firmly seated in the uriniferous tubules, are only cast out when they become peptonized on their external surfaces. In 1884, also, Maixner described what he called the "enterogenous" form of peptonuria occurring in cancer of the stomach and typhoid fever, where the peptone of digestion is absorbed directly into the circulation, and passes thence into the urine.

Quite recently, PACANOWSKI, in the *Zeitschrift für klin. Med.*, 9 Bd. 5 Heft, August, 1885, has published the results of the study of this matter in a large number of cases of disease. He used both tannic and phosphortungstic acid for precipitating the urine, and considers the latter more convenient and the method shorter. To remove albumen, acetate of iron is to be added only as long as abundant flocculi are precipitated, not, as Hofmeister says, until the fluid becomes permanently red, for this seldom occurs, the color remaining brownish or reddish-gray. Further, as to the decomposition of the phosphortungstic precipitate with baryta, there appears at the beginning of the rubbing a green color which should pass over into yellow. Should this not occur after much rubbing, more baryta should be added and the rubbing continued. Only when the precipitate is yellow has complete decomposition taken place. Then after adding a little water and boiling, the entire precipitate falls, and the supernatant fluid remains bright yellow. To this he applied the "biuret" test already described in these pages.

Pacanowski's observations covered 211 cases of disease, and included 810 urine analyses, in 350 of which he used the tannin method of precipitation. In 36 cases of typhoid fever it occurred twenty-five times; in 2 cases of typhus, once; in 2 cases of variola, twice; in 2 of scarlatina, twice; in 4 of intermittent fever, once; in 4 of miliary tuberculosis, twice; in 3 of erysipelas, three times; in 6 of acute rheumatic arthritis, six times; in 2 of chronic arthritis, once; in 25 of pulmonary phthisis, eleven times; in 5 of chronic pneumonia, twice; in 7 of croupous pneumonia, seven times; in 6 of purulent pleurisy, four times; in 2 of embolism after insufficient mitral valve, twice; in 3 of angina of the fauces, once; in 1 of carcinoma of the œsophagus, once; in 3 of carcinoma of the stomach, three times; in 2 of carcinoma of the rectum, twice; in 1 of perityphlitis, once; in 5 of catarrhal jaundice, three times; in 2 of hypertrophic cirrhosis of the liver, once; in 3 of cancer of the liver, three times; in 5 of parametritis, four times; in 2 of cerebral apoplexy, twice; in 1

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of parotitis, once; in 2 of abscess, once; in 1 of ecchymosis after trauma, once; and in 1 of muscular rheumatism, once. He found it absent in 1 case each, of diphtheritic angina, fibrinous pericarditis, ulcer of the stomach, purulent peritonitis, acute nephritis, gonorrhœal orchitis, hemiplegia, epilepsy, anæmia—probably pernicious, diabetes mellitus, external otitis, ambustura and necrosis; in 2 cases of serous pleurisy, chronic endometritis, myoma of the uterus, chronic leptomeningitis, tabes dorsalis, leukæmia, gonitis fungosa, sarcoma of the neck and superior maxilla; in 3 each of measles, insufficient mitral valve, chronic gastritis, acute enterocolitis, cholelithiasis, and cyst of the ovary; in 4 each of chronic nephritis, and neuralgia; and 5 each in chronic bronchitis, chronic myelitis, and hysteria.

He further divides the cases into acute and chronic, including in acute peptonuria the various forms of inflammatory (suppurative) process of the acute infectious diseases. In the chronic are included carcinoma, pulmonary phthisis, and diseases of the liver.

In the case of typhoid fever, as to which the results of Maixner and v. Jaksch were at variance, Pacanowski, agreeing with Maixner, found peptonuria tolerably frequent, almost constant at the beginning of the period of defervescence, or a few days earlier, and this in the milder, as well as the more serious cases. Indeed the reaction was at times more distinct in the former. So long as continuous fever was present, so long as the typhoid symptoms were strongly expressed, peptonuria could not be demonstrated. Nor was it found in those fatal cases in which there was no suppuration. In one case, however, accompanied by phlegmonous abscess, there was peptonuria, but after incision into the abscess, and removal of the pus, peptonuria disappeared. In cases of relapse, if there was peptonuria in the primary disease, it reappeared in the relapse.

What has been said of the time of appearance of peptonuria and its relation to the febrile process in this disease is true of the other infectious diseases, including miliary tuberculosis.

In explanation of this very interesting condition in typhoid fever, Pacanowski does not accept either of the more recent views of Maixner. That of Gerhardt, that it is due to the action of high temperature upon the albumen conversion of the blood plasma, has long been laid aside. Maixner first, with Schueltzen and Riess, ascribed peptonuria to an insufficient oxidation of the nitrogenous and non-nitrogenous substances which normally result from the splitting up of albumen. As a consequence of this, albumen does not pass over into the usual products, urea, uric acid, etc., but retains a stage of less complete oxidation. Thus it is that we have leucin and tyrosin in the urine in acute yellow atrophy of the liver. This view, entirely theoretical, is not sustained by facts, according to Pacanowski, for in typhoid fever there is not an inhibited, but rather an increased oxidation of the principles of the body.

The more recent view of Maixner, also rejected by Pacanowski, ascribed peptonuria to the abundant exfoliation of epithelium and the presence of albuminous intestinal juices, together with deficient supply of nutritious matter.

The action of the lower organisms upon albumen has also been suggested in explanation, but if this is the case, says Pacanowski, why is not a proportionate degree of peptonuria present in miliary tuberculosis and in fatal uncomplicated typhoid fever?

Pacanowski himself thinks we need not go further than the local phenomena of inflammation which are found in some places, and, in some form, in all the infectious diseases in which peptonuria is present. Preeminently is this the case in typhoid fever, where we have, at first, an inflammation of the entire intestinal tract, including a small-celled infiltrate of the follicles and mucosa. Later we have ulceration of the solitary glands and Peyer's patches, necrosis and separation of slough, followed, in favorable cases, by healing with a smooth cicatrix, and the resorption of the deeper layers of the intestinal infiltrate, as well as that of the mesenteric glands. Thus are furnished the very conditions which Maixner in his first paper showed to be responsible for peptonuria in simple exudative processes

That peptonuria does not occur during the period of ulceration in typhoid fever, but rather at the beginning of the process of healing, is explained by the fact that ordinarily the typhoid ulcer has, after separation of the slough, a clean, smooth bottom in which are wanting the proper conditions of absorption, while, in addition to this the products of the sloughing process are promptly carried away by the diarrhœa. This agrees with the fact long known, that on exposed surfaces the absorption of the peptone originating from the disintegrating pus cells does not freely take place as long as the products of cell disintegration can pass easily away. But in closed cavities, as in parametritis and articular rheumatism, and in parenchymatous organs, we have conditions favorable to the absorption of the exudate.

At the beginning of the healing process in typhoid fever, we have the conditions favorable to peptonuria. The mucous membrane of the ileum, richly infiltrated with cells, the muscular and subserous layer as well as the cell-infiltrated gland apparatus, are returning rapidly to their normal state, and the cellular elements of the infiltrate as rapidly undergo disintegration, furnishing the peptone for absorption. Peptonuria in milder cases of typhoid is explained by the absorption of the cellular infiltrate which is present even where there is no ulceration, and, in other acute infectious diseases, where there is abund-

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ant cell infiltration, as in Pacanowski's two cases of scarlatina, where there were angina and swelling of the cervical glands, the same explanation holds; so, too, in that of smallpox, where the pustules dried on the surface; in intermittent fever, where there was reduction in the size of the spleen by the action of quinine; in all these there was peptonuria. On the other hand, in the three cases of measles where there were no such conditions, there was no peptonuria. Furthermore, peptonuria occurred in cases of non-inflammatory hemorrhagic exudate, in which it may be ascribed to the absorption of effused blood. Such were two cases of cerebral hemorrhage, and one of contusion of the thigh.

The study of chronic peptonuria, in phthisis, pneumonia, and cancer, would seem to show that, except in cases of the last, it is everywhere due to the same cause—the disintegration and absorption of cellular elements.

In phthisis it was more particularly in the earlier stages, where the dulness of the apex was slight, and cavities were still absent. Where there was extensive loss of lung tissue, and even in simultaneous ulceration, there was no peptonuria, and it was altogether independent of high temperature.

In cancer of the gastro-intestinal tract, where peptonuria is common, the primary explanation of Maixner, that it is due to the absorption, by the ulcerated surfaces, of the peptone of digestion, as well as that produced by the disintegration of the new formation itself, still holds good; but in cancer of the œsophagus, rectum, and uterus we must have recourse to the disintegration of the new-formed cellular tissue as the sole source. Such was the case in a decided degree in one case of cancer of the uterus in which there was peptonuria, while there was none in the second, where there was no such disintegration.

Peptonuria, accompanying cancer of the liver, however, requires a different explanation, and its almost invariable association with undoubted disease of the kind compels the theory that in health the liver has something to do with the conversion of peptone into albumen, and that in cancer this is interfered with. Such a view is sustained by the experiments of Plósz and Gyergyai, Hofmeister, and Seegen. Changes in the liver must be sufficiently great to influence this normal office. Should this be the case in other than cancerous disease, peptonuria may also occur, as is actually the case in acute yellow atrophy and phosphorous poisoning.

In nephritis, Pacanowski fails to confirm the statement of Senator, Petri, and Pœhl, that albuminuria and peptonuria coexist, having failed to find it in four cases of chronic and one of acute nephritis. In this he agrees with Maixner. Nor could he confirm the assertion of Fenomenow, that in urine containing numerous morphological elements, including pus and blood-corpuscles and tube-casts, peptone is present; nor that of Pœhl, that urine containing peptone, but no albumen, loses the former on becoming alkaline. Experiments with urine allowed to decompose, for the direct purpose of determining this, showed the continued presence of peptone, although the biuret reaction was weaker.

It will be seen, from the above quite full exposition of the subject, based upon the paper of Pacanowski, no diagnostic or prognostic value can as yet be associated with peptonuria, its presence being simply a part of the clinical history of the diseases with which it is associated. It will be seen, too, that it is a tolerably frequent condition; and the statement of Dr. George Johnson, already quoted in these pages, that it is rare, must be erroneous. The chief importance at present attaching to its study would seem to be not so much the determination of its presence as the avoiding of confounding the latter with albuminuria, an object which cannot be said, as yet, to be satisfactorily attained.

DIAGNOSIS OF THE POSITION OF THE HEAD IN LABOR BY TOUCHING AN EAR.

WHILE in the majority of cases of labor the obstetrician can make an accurate diagnosis of the position of the head by means of the sutures and fontanelles, there are some cases where he may be in doubt, or the landmarks referred to may fail in consequence of a large caput succedaneum. In the latter case it is usually recommended to introduce one or more fingers so as to touch the part of the head above the caput succedaneum where the sutures are unobscured by the swelling.

For the diagnosis of the position when great swelling of the presenting part, hiding the fontanelles and sutures, has occurred in consequence of protracted labor, DR. LOMER, of Hamburg, in a recent number of *Centralblatt für Gynäkologie*, recommends the use of the hand, especially when the forceps is to be applied, in order to feel an ear. The anterior and the posterior margin of the external ear differ so strikingly in shape, that if an ear can be felt—and if there be room for the introduction of the blades of the forceps there is room for this use of the hand—it is very easy to know the position of the head. He states that he has found this method so practical that in all his later forceps operations amounting to 109, he has resorted to it, having given up the attempt to locate sutures and fontanelles when the swelling referred to has occurred.

Lomer has revived an old practice. Smellie, for example, in the second edition of his *Midwifery*, London, 1752, says in his rules for applying the forceps: The position of the head is distinguished by feeling for one of the ears, the fore or smooth

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part of which is towards the face of the child; if it cannot be ascertained by this mark, the hand and fingers must be pushed further up, to feel for the face, or back part of the neck; but, if the head cannot be traced, the observation must be taken from the *fontanelle*, or that part of the *cranium* where the lambdoidal suture crosses the end of the *sagittal suture*. It is also seen from this extract that Smellie ended the means of diagnosis with that with which most ob-tetricians to-day begin theirs.

The late Dr. McClintock, in one of his annotations found in the Sydenham Society's edition of Smellie, remarks. "I am sure there is often too much diffidence about using the *hand*, as pointed out by our author, for the purpose of acquainting ourselves with the condition of the pelvis, and the relative position occupied in it by the fœtal head."

ANTISEPTIC OBSTETRICS IN CITIES.

THE most important question in obstetrics at present is as to the use of antiseptics. Are these required in all cases of parturition, and if so, how are they to be used? May one rule be made for the direction of the obstetrician who practises in the country, and another for the city practitioner? The former will be very slow to subject a woman in labor or after labor, to antiseptic vaginal injections. Many a country physician has never had a case of puerperal septicæmia in his practice, or, at most, has only met with a few isolated cases of the disease, and it is natural for him, having got on so well without the precautions referred to, to reject their use in the future. While he may have reason founded upon his experience for this, his brother practitioner of the city has not so good an excuse for following his example. Bearing upon this question we desire to make brief reference to a work by DR. DEBACKER, upon the *Necessity of Antiseptic Accouchement in Populous Centres*, recently issued in Paris, of which we find a notice in the *Archives de Tocologie* for September.

Dr. Debacker states that if a woman takes baths in the latter part of pregnancy, she should add a solution of corrosive sublimate to the water, and also while taking the bath have a perforated tube placed in the vagina, so that the water may pass up to the neck of the womb. If she does not bathe, she ought to take a vaginal injection morning and evening of a solution of sulphate of copper, one part to one hundred. During labor a disinfectant vaginal injection is made, and phenic oil is used upon the finger before the latter is introduced into the vagina.

After the labor has ended and clots have been expelled, an irrigator with a vaginal canula well oiled and disinfected is used to throw into the vagina from half to a whole quart of a solution of sulphate of copper one part to one hundred; as the os uteri is now largely open, there is really a washing of the uterus thus made. The injections are repeated morning and evening.

Debacker holds that the antiseptic method ought to be universally adopted in all populous cities, that it alone offers almost a complete security in labor, and that should puerperal accidents occur, it is the remedy which, combined with those suggested by therapeutics, can alone effect a cure.

THE profession is again under obligations to the enlightened liberality of the National Government and to the intelligent zeal and indomitable industry of Surgeon Billings for the sixth volume of the *Index Catalogue of the Library of the Surgeon-General's Office*. This volume, which has just been issued, contains 1051 double-column pages, extending from "Heostic" to "Insfeldt," and includes 7900 author-titles and 49,880 subject-titles, and embraces some very large subjects; for instance "hernia" occupies 84 pages, "hospitals" almost 100 pages, "hydrophobia" 31 pages, "hygiene" 117 pages, and "insane" and "insanity" 57 pages.

The value of this work in the study of the alleviation of human suffering is simply incalculable, and it behooves the profession and the public to see that no other duties shall be imposed upon Dr. Billings which will interfere with his giving his close personal supervision, which is necessary to the accuracy of the work, to the completion of this great undertaking, the publication of which redounds so highly to the honor of the Nation.

REVIEWS.

MANUAL OF PHYSIOLOGY, A TEXT-BOOK FOR STUDENTS OF MEDICINE. By GERALD F. YEO, M.D., F.R.C.S., Professor of Physiology in King's College, London, etc. With 301 engravings. Pp. 749. Philadelphia: Blakiston Son & Co., 1884.

THE rapid development of physiological science has rendered such standard works as that of Carpenter, so bulky, that an imperative demand for manuals of more moderate size has arisen, not only among students, but also among practitioners who desire to keep themselves thoroughly *au courant* with the wonderful advances recently made in this department of biology. To meet such a want Dr. Yeo has prepared this excellent text-book, which for a work of its limited scope is entitled to unqualified praise. The author has judiciously endeavored to avoid the introduction of theories which are as yet unestablished, and has omitted such details of methods as are unimportant for the younger class of students. Much space is saved by restricting statements to the mere facts, without any history of how our knowledge has been obtained, or to whom we owe the great debt of discovery in regard to them. Dr. Yeo's practical experience as a teacher and examiner of students, has taught, and so well taught him what par-

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ticular subjects are difficult of comprehension by the average pupil, that these questions are elucidated with especial care, and yet the error of too elaborate explanation, at the expense of undue curtailment of other important departments of the science, is skilfully guarded against. Indeed, distinguishing characteristics of the work are perspicuity without diffuseness, and condensation without lack of precision or the omission of essential truths. The woodcuts are numerous and of excellent quality, those illustrating the admirable chapter devoted to reproduction and the development of the embryo, being especially valuable to a novice in this fascinating department of natural science.

A HANDBOOK OF THE DISEASES OF THE LIVER, BILIARY PASSAGES, AND PORTAL VEIN. By HENRY R. RUCKLEY, Licentiate of the Royal College of Physicians, Edinburgh. 8vo. pp. 221. High Wycombe, F. Westfield. London: W. Kent & Co.

THIS work, the author tells us, was suggested by his own necessity; for after reading all the modern works on the subject, he felt that there was wanting a small, handy manual suitable for the general practitioner and student. We sincerely trust that active professional duty at High Wycombe will prevent his reading all the modern works on any other subject, lest a similar compulsion should seize him, and result in the production of another such dull, toneless compilation as the present volume.

SOCIETY PROCEEDINGS.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

Thirty-fourth Annual Meeting, held at Ann Arbor, Michigan, August 26–31, 1885.

(Specially reported for THE MEDICAL NEWS.)

(Concluded from page 306)

DR. H. G. BEYER, of Washington, presented the following

BIOLOGICAL DEDUCTIONS FROM A COMPARATIVE STUDY OF THE INFLUENCE OF COCAINE AND ATROPINE ON THE ORGANS OF CIRCULATION.

The study of action of drugs on the animal organism has received such a step-motherly treatment at hands of scientists' investigations, that it is fair to make the general statement that there are very few drugs that will not admit of a reinvestigation by our present improved scientific methods. I do not propose, however, to go into the action of these drugs, and I shall briefly speak of the purely biological results which these experiments allow me to make.

These deductions are considered of sufficient importance to be brought before this Association, for the reason that they touch upon the complex but deeply interesting problem of the innervation of the vertebrate heart. The heart, histologically considered, is a compound organ, consisting of musculator, nervous, and connective tissue. No study of the action of any drug upon the heart can be considered complete, unless the nature of the action of such a drug upon each of these different elements composing the heart is clearly made out. The extreme difficulty of this problem, however, must be apparent to you, even without my attempting to go into a review of the historical details of the controversy that exists between the best physiologists with regard to the action upon the heart of even the best-known drugs.

With reference to the action of atropine upon the heart, it is the opinion of Schmiedeberg, Harnack, and others, that it produces paralysis of the vagus endings within the heart, thus causing acceleration and augmentation in its action; muscarine, in their opinion, stimulates these same nerve-endings, thus producing diastolic arrest.

Bowditch, as long ago as 1871, and more recently, also, Gaskell and Ransom, have come to the conclusion that atropine stimulates the muscular substance, and that the augmentation it produces in the heart's action is due to that influence, and not to a paralysis of the vagus endings.

Recently Amalie Glause, in her inaugural thesis, gives an account of some experiments, made in the laboratory of Professor Luchsinger at Berne, which tend to prove almost conclusively that muscarine paralyzes the heart muscle, instead of stimulating the vagus endings, and that, therefore, the diastolic arrest it produces is due to its paralyzing influence on cardiac muscle, rather than to its stimulating influence on the vagus endings. In other words, the antagonistic action of atropine and muscarine with reference to the heart according to Schmiedeberg, Harnack, and others, is a purely nervous phenomenon; while, according to more recent and equally good observers, it is a purely muscular phenomenon.

From our last winter's work on the action of cocaine, atropine, and muscarine on the heart, we are enabled to add some further proof to the muscular nature of the action of these drugs on the heart, at the same time we may perhaps succeed in indirectly showing that atropine and cocaine, instead of paralyzing the vagus endings, slightly stimulate them.

Upon the first admission of atropinized blood into the isolated heart of the frog or terrapin, the heart-muscle preëminently manifests the action of some powerful stimulant. After a while, however, there arrives a stage of muscular exhaustion from over-stimulation, and, at the same time, there appears a peculiar dissociation of rhythm between auricles and ventricle, the auricles contracting two or three times to the ventricle once, quite independent of each other.

The dose of the drug may be so graduated that this peculiar rhythm can be kept up for any desired length of time, and, after the heart has been allowed to recover under normal blood, it can be reproduced many times during the course of one single experiment.

How are we, now, to explain this singular phenomenon? Last year, in one of the Paris hospitals, under the service of Prof. Boudet, a patient came under observation who had a radial pulse of only 21 beats per minute, the auricles beating at the rate of 63 per minute. Prof. Chauveau took a sphygmographic tracing of this patient, and went to work investigating the pathogeny of this condition. By dividing one of the pneumogastrics in a dog (?) he obtained some dissociation of rhythm, but, by slightly stimulating with a galvanic current the left pneumogastric, he obtained a sphygmographic tracing which was identical with that taken from his

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patient. If these observations are correct, which we have no apparent good reasons to doubt, I think that it is not at all improbable that the dissociation in rhythm which we have observed as produced by atropine is due to a slight stimulating action which this drug exerts on the vagus endings, and which becomes apparent after the muscular substance at the heart has begun to show signs of exhaustion.

Now, cocaine produces exactly the same dissociation of rhythm, but, unlike atropine, cocaine produces it almost at once, for the latter does not possess any stimulating properties on muscular tissue. The sympathetic nerve endings are equally stimulated by these two drugs, since the work done by the heart, during this stage of comparative muscular exhaustion and lowered ventricular rhythm, is still much greater than under normal conditions.

If muscarine produces cardiac diastolic arrest through its paralyzing influence on the muscular substance, and atropine and cocaine affect the heart in every respect alike, except that cocaine does not stimulate the muscular substance, then muscarine must produce diastolic arrest in the cocainized heart, which, indeed, it invariably does. And here we have another proof of the muscular nature of the atropine—muscarine—antagonism as manifested by the heart.

These experiments alone would, of course, not be sufficient to prove decisively, but, taken in conjunction with the experiments briefly alluded to above, they form a sort of crucial test.

We may now, with regard to the action of these drugs on the heart, formulate our conclusions as follows, viz.: Muscarine paralyzes the cardiac muscle; atropine stimulates the same. Atropine, furthermore, has a slight stimulating effect upon the vagus endings, and also on the endings of the accelerator or augmentor nerves of the heart. Cocaine affects the nerve-endings within the heart in the same manner as atropine does, but, unlike the latter, has no stimulating action on its muscular substance.

DR. C. S. MINOT, of Boston, read a paper

ON THE STRUCTURE OF THE HUMAN PLACENTA.

There are many clashing opinions about the physiology of the placenta. It is common to assume that there is intimate union between tissues of placenta and of the mother, and that the embryo derives nourishment from the mother through this close union. By the use of celloidine, we are able to hold substances in position and to make sections for microscopic examination, thus securing valuable possibilities for studying the placenta beyond previous means.

The structure of the placenta is remarkable, because of the great irregularity of the shape of its villi. I have made a large number of sections, some of them in 500 or 600 parts, which all fall apart when the celloidine is dissolved. Prof. Langhaus has done good work in investigating these matters.

By the third week of gestation the placenta begins to develop; villi grow out from the ovum and touch the maternal tissue. The development of one side is much more rapid than that of the other. The only contact between the placenta and the maternal tissue takes place at the tips of these villi. We are unable to say that we find here a true epithelium, but rather, apparently, a syncytial layer.

The human placenta consists of

1. The amniotic epithelium; 2. Connective tissue; 3. Stroma of chorion; 4. Cellular layer; 5. Fibroid layer; 6. Villi; 7. Chorionic epithelium; 8. Serotina.

There is no intergrowing of the maternal and fœtal tissues. The placenta is mainly fœtal, and the intervillous spaces are bounded only by fœtal tissue. The fœtus, then, is nourished by a uterine milk secreted in a manner not dissimilar to that of the milk in the breasts; and it is only partly nourished directly from the circulation of the blood of the parent.

PROF. GAGE stated that this theory simplified the problem of nutrition, but complicated that of respiration.

DR. MINOT replied that the fœtus needed not much oxygenation of the blood, not having any work to do but to sustain its own life and growth, and blood of the fœtus, both venous and arterial, is usually red, showing full oxygenation.

DR. MINOT also read a paper on

THE EVOLUTION OF THE LUNGS.

Heretofore no acceptable theory of the origin and evolution of the lungs has been promulgated. It has generally been believed that they are modified air sacs, appearing first in fishes, and developing into lungs in higher animals.

Lungs always arise out of the intestine of the embryo. The air sac of fishes arises out of the dorsal, while the lungs arise out of the ventral side of the embryo. He believes the lungs to be modified gills. They arise as pouches from the walls of the pharynx. In the embryo of mammals gill arches arise and develop on the ventral side. The pouch soon extends down and forms what all embryologists recognize as the beginning of the lungs. If we see a succession of pouches lying alongside each other, and formed in the same way, we homologize them, notwithstanding the different functions they subserve in the adult. The ear cavities, and the thyroid and thymus glands, as well as the lungs, arise from these gill pouches.

This paper was only advanced as a preliminary hypothesis.

PROF. COPE discussed the paper, and suggested that the present hypothesis of evolution may be sustained on the theory that in the embryology of fishes the original method of evolution may have been modified, as the germs of *polyparus* still show development of air sacs from the dorsal side.

DR. C. S. MINOT then read a paper on the

MORPHOLOGY OF THE SUPRARENAL CAPSULES.

Balfour and his scholars have maintained the theory of the double origin of the suprarenals. Examination of the human fœtal capsule renders it difficult to accept this view, since the whole structure is similar throughout. There are masses and cords of cells which are in radial lines externally, but more irregular internally; but the cells of the cortex and medulla both present, in a six months' fœtus, a similar and very remarkable appearance, so that it is difficult to admit that they are distinct tissues of two distinct origins. The histological character of the parenchyma was described and illustrated.

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DR. MINOT also called attention to

A NEW MEMBRANE OF THE HUMAN SKIN.

In the human fœtus there is a layer of large cells outside the horny layer, and entirely distinct from it. This layer is homologous with the epithelium of the sauropsida, and covers also the hairs and glands. Its presence probably accounts for the retention of the sebaceous secretions to form the *vernix caseosa*.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, September 3, 1885.

THE PRESIDENT, B. F. BAER, M.D., IN THE CHAIR.

DR. B. F. BAER read the following report of a case of

OVARIAN CYSTOMA COMPLICATED WITH PERITONITIS AND PHLEGMASIA ALBA DOLENS; DOUBLE OVARIOTOMY.

Mrs. M., æt. 31, has been a widow nine years, she had one child ten years ago, and had enjoyed good health until about three years before I saw her. At that time she observed that her abdomen was increasing in size. This gradually progressed for eighteen months, when she was large enough to attract the attention of her neighbors. After this the growth remained almost stationary, and did not affect her general health until the latter part of March of the present year, when she was suddenly seized with pain in the left iliac region. The pain was acute and radiating in character, extending principally down the anterior portion of the left thigh. She attributed the attack to an unusual exertion. Although she made an effort to continue her avocation, —that of seamstress—she was compelled to give up and send for her physician, my friend, Dr. John R. Haney, of Camden.

When Dr. Haney first saw her, her abdomen was very tender over its entire surface, purple from congestion, greatly distended and tympanitic in its upper but dull in its lower portion. She was suffering great pain and had constant nausea and vomiting, her skin was hot, pulse 120, and temperature 103°. From the history, symptoms, and physical signs elicited, the doctor diagnosticated ovarian cystoma with supervening peritonitis. He administered quinia per rectum and morphia hypodermatically, together with counter-irritation over the abdomen. Within a week the patient appeared to be better, when, through the kindness of Dr. Haney, I first saw her. The tympanites had disappeared, and the pain was not so severe, but the abdomen was still very tender on pressure, especially in the left iliac and right umbilical regions; her features were drawn and flushed, and presented an anxious expression; her tongue was dry and heavily coated, pulse quick, and temperature 102°. She lay quietly in the dorsal position with her thighs flexed. The abdomen was as large as at full term of gestation, and was projecting. It was dull on percussion everywhere except along the line of the colon, and in the epigastrium there was evident fluctuation. The uterus was retroverted, not freely mobile, and very tender on pressure on the left side. Above and upon it could be felt the lower border of the circumscribed growth which occupied the abdominal cavity. I fully agreed with Dr. Haney's diagnosis of ovarian cyst complicated by peritonitis. As she seemed to be somewhat better, I advised a continuance of the treatment as previously pursued, with the hope of obviating the necessity of ovariotomy during the unfavorable condition in which she then was.

The peritonitis continued to improve slowly, but a new trouble presented itself in a very painful swelling of the left lower extremity. This continued until the limb was greatly increased in size. Its temperature was much higher than that of its fellow, which seemed to be in a normal condition. She now required large doses of morphia to relieve her pain, and she was losing flesh and strength. She still had nausea and took almost no nourishment. Her temperature and pulse had again risen to the highest point noted. Both she and her friends were willing and anxious that we should do something more radical than simply to wait for a more favorable condition for operating if we deemed it proper. I believed from the symptoms and physical signs, that the inflammatory action was external to the cyst and not within it, and for that reason decided to wait for a subsidence of the acute symptoms, which I rather confidently expected. At the same time I held myself in readiness to operate at once should the patient not improve or become worse. The next day she showed signs of slight improvement. Treatment, both local and general, continued. The acute symptoms gradually subsided to those of a subacute condition. The temperature had decreased to 101°, pulse 100 but weak. She was still unable to retain food and was extremely weak. I advised further delay, but she did not improve much after this, her temperature and pulse remaining about the same as that noted above. Her stomach had regained its power, to a slight degree, to retain and digest liquid food.

She had now been confined to her bed more than two months. Her left leg was powerless. There had not been the slightest improvement during the two previous weeks. We therefore decided to remove the tumor.

Operation.—June 19, 1885, assisted by Drs. J. K. Haney, W. H. Davis, and H. M. Christian, and in the presence of a section of the class from the Polyclinic, I made an incision three inches in length down to the peritoneum, and then checked the hemorrhage, which was free, with clamp forceps. I next very carefully incised the peritoneum, and found, as I had expected, that it was closely united to the cyst wall. These adhesions of cyst to peritoneum were universal, and it required careful and patient manipulation to separate them. The parts were exceedingly vascular and hemorrhage was profuse. After separating it as far as possible, I tapped the cyst and allowed the contents, which were semi-liquid and chocolate-colored, to drain away. I next closed the puncture made by the trocar, and then completed the separation of the cyst from its adhesions and removed it. As there was a very general and free oozing of blood from the broken vessels, I introduced a number of large flat sponges and spread them over the bleeding surface. An assistant now made firm pressure upon the external surface of the abdominal walls whilst I ligated the pedicle and removed the tumor. The cyst developed in the left ovary and the pedicle was slender, not unusually vascular, and of good length. The right ovary was diseased, contained a number of

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small cysts, and was double the normal size. I removed it also. Examination now showed that the hemorrhage had almost ceased, but there were still a number of points from which blood flowed. The peritoneum was intensely injected and I disliked very much to pick up bleeding points for fear of making the hemorrhage worse. I therefore reapplied a large flat sponge, and had firm pressure again made from without whilst I proceeded to place the sutures for the closure of the incision. I then removed the sponge and found very little blood upon it. I replaced it by a long, narrow strip of sponge which I allowed to project from the lower angle of the wound and then again cleansed Douglas's cul-de-sac and other dependent portions of the peritoneal cavity, after which I quickly tied the sutures from above downwards removing the long sponge through the lower angle of the wound before I had encroached so closely upon it as to compress it in its removal. It was only slightly stained. I quickly applied the external dressing, making an unusual amount of pressure by cotton and bandage. The operation was finished, but the patient bore it badly. Her extremities were cold and purple, her face livid, and pulse very weak. Stimulants hypodermically, and the application of external heat, which were begun during the operation, were continued after she was returned to bed. She remained in an almost collapsed state for many hours, but gradually reacted, and the next morning was in a fair condition. Her temperature was lower than it had been for weeks, pulse 112 but weak, stomach quiet, no pain, no tympany. She had taken an occasional small piece of ice, but nothing else except the morphia, since the operation.

21st.—Temp. 102°; pulse 120. Slight pain and tenderness in left iliac region. She had been very weak and faint during the night, for which brandy had been administered in repeated small doses. The swelling and pain in the limb had diminished; she had not vomited since the operation, and felt hungry. Ordered a teaspoonful of milk every second hour.

22d.—Comfortable and doing well. Temp. 99⅘°; pulse 90, and strong. Slight metrostaxis. Passed flatus per rectum. Milk increased to a tablespoonful, and retained.

24th.—Temp. 99°; pulse 85. General condition greatly improved. No pain; no tympany. Examined wound and found it united throughout; removed sutures.

25th.—Doing well, and is bright and cheerful. She took nearly a quart of milk during the last twenty-four hours, and digested it.

30th.—She has been gradually improving. Temp. normal; pulse 95. Bowels moved to-day. She is taking solid food, and expresses herself as feeling quite well. Limb improving. She can now move it.

July 12.—Sat up to-day for the first time, the twenty-second after the operation.

August 30.—A note received from Dr. Haney to-day informs me that Mrs. M. is going about attending to some of her duties, but that she has not yet regained her strength fully, and that her limb is still weak.

The recovery of this woman under the forlorn circumstances just narrated is certainly a great triumph for our art; but the case serves a better purpose in forcibly illustrating the danger of deferring operative interference in ovarian cystoma simply because the patient is comfortable and suffering no inconvenience from the presence of the tumor. The subject of an ovarian tumor is in constant danger of injury from slight causes, which may produce such changes in the tumor as to render what might have been a simple and safe operation, one of extreme hazard. This had been a simple, slow-growing cyst, and had not markedly affected the health during its three years of existence; yet it suddenly became inflamed, and the patient narrowly escaped death as a result. The case furnishes a strong argument in favor of operation as soon as the disease is diagnosticated. Of course there are qualifications, and each case must be decided on its own merits; but the rule that an ovarian tumor should be removed as soon as it is known to exist is the only safe one to follow.

As a striking contrast to the case just related, and to show the value of the principle enunciated, I will report the following case of

POLYCYSTIC OVARIAN TUMOR: DOUBLE OVARIOTOMY.

A. R. was sent to me August 5, 1885. She was nineteen years of age; single. Puberty was established at sixteen, and she had menstruated regularly until six months previously. She then, without cause so far as she knew, began to flow more freely at her periods, and they continued longer. About the same time she noticed a small lump in the right iliac region. This increased in size, so that soon the entire hypogastrium was distended, and when I first saw her she was as large as at the eighth month of gestation. Her face showed marked signs of emaciation and pallor, and the drawn, anxious expression of ovarian cystic disease. She was then having a profuse metrorrhagia every two weeks. She had not suffered any pain, and up to within a few weeks very little inconvenience, except from the frequent metrorrhagia. During the last month, however, her health had been failing. She had lost flesh, had a weak, languid feeling, and suffered much from the weight of the growth. Physical examination in the dorsal position revealed a projecting, slightly irregular abdomen, larger on the right side, dull on percussion over the entire anterior surface, but resonant along the line of the colon. Palpation showed imperfect fluctuation and several firm, irregular masses within the abdominal cavity. The vagina was virginal, the cervix uteri was pointing forwards, the body of the uterus retroverted, the whole organ enlarged and soft. It was only slightly movable independently of the tumor. The sound gave a measurement of three inches.

I diagnosticated polycystic disease of the right ovary, and advised immediate operation.

Six days afterward, on August 11th, she entered my private hospital; and on the 13th I operated, with the assistance of Drs. H. M. Christian and J. N. Richards. I made an incision two and a half inches in length, and came upon the surface of the tumor, which presented the white, glistening, nacreous appearance especially common to thick-walled polycysts. Tapped with Hodge's trocar. The contents were so thick that they flowed very slowly, and it was necessary to puncture several smaller cysts, which was done without removing the instrument. Even then the mass did not collapse, much because of a large number of young or child cysts. After closing the puncture, I enlarged the incision

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to three inches, but I had considerable difficulty in removing the tumor. It was necessary to make firm traction with rotatory movements whilst Dr. Christian exerted a counter-force and pressure through the abdominal walls. Fully ten minutes were occupied in delivering the tumor after it was tapped, but I was rewarded with an incision that looked so small that it seemed almost incredible that this large mass had passed through it. There had not been a single adhesion, but the pedicle was short, thick, and vascular. I tied it with Tait's Staffordshire knot, cut the tumor away, and dropped the stump. The tissues of the left ovary were found to be entirely disorganized and degenerated into a cyst as large as a walnut. This I also removed. The uterus presented a very vascular appearance and was somewhat enlarged. After assuring myself that the peritoneal cavity was entirely free from any foreign matter, I closed the incision, dressed the wound, and returned the patient to bed. Temperature normal, pulse 96; no pain, but as she felt a little sore and restless a quarter of a grain of morphine was given hypodermatically; small pieces of ice to relieve thirst.

14th.—8 A. M., temperature 99°; pulse 84; has passed a good night. At 1 P. M., twenty-six hours after the operation, milk in teaspoonful doses was allowed; water when she desired it.

15th.—Metrostaxis began this morning.

18th.—Union complete; removed sutures. Her recovery was uninterrupted. She sat up for a few minutes on the eleventh day, and went home, eight miles, in a carriage on the eighteenth day after the operation. To-day she sent a request to be permitted to go out, because she is feeling so well. Certainly nothing could have been gained by procrastination in this case.

DR. GOODELL congratulated Dr. Baer on the good results obtained in such a serious case as that first reported. Great care in the asepsis of these cases should be observed. In one of his cases of septicæmia, after complete union had been secured, and the stitches had been removed, and after the patient was up, an abscess was observed forming in the line of union and was very persistent. Finally, after careful search, a ligature which had been tied around the pedicle of one of the ovarian cysts was found and removed. Subsequently the other appeared, and after its removal the abscess healed.

He did not like to remove the stitches so early as Dr. Baer removed them; and he recalled a case in which Dr. Baer had assisted him. The operation was performed on December 5th. Convalescence was rapid and the patient was so impatient to be home on Christmas, that she could not be restrained, and on the nineteenth day after the operation she took the cars for home. The train was derailed and the jolting caused the cicatrix to open. The physician who was called in closed it immediately, and the patient recovered. In another case a cough caused the wound to burst open and reveal the bowels after the stitches had been removed. This patient also recovered. For these reasons he never removed the stitches before the eighth day, and not until the bowels had been opened.

Dr. Goodell inquired of Dr. Baer his method of closing the opening in the cyst after it had been tapped preparatory to its removal from the abdominal cavity. Does he employ pressure forceps? What method of dressing the abdominal wound?

DR. BAER closes the cyst puncture with Wells's clamp forceps when the cyst wall is strong enough. In some cases he stitches up the opening or ties a string below it when the cyst walls are loose and soft. He closes the external wound, as he had been taught by Dr. Goodell, with silk sutures and dresses it with salicylated or absorbent cotton, adhesive strips to hold the cotton in place and take the strain off from the stitches, and over all a bandage. He removes the sutures on the fourth or fifth day, in order to avoid the danger of pus forming in the suture tracks, as has sometimes occurred when he has allowed them to remain as long as eight days.

DR. GOODELL exhibited his improved

UTERINE DILATOR.

He said that the main difficulty in the operation for the rapid dilatation of the cervical canal lies in the liability of the blades of the instrument to slip out. This he had, in a great measure, overcome by having shallow grooves cut into them. Into these grooves the tissues sank, and the resulting friction keeps the instrument in place.

Since he had called the attention of the Society to his instrument, not quite a year ago, he had performed the operation forty-one times for dysmenorrhœa and sterility, making in all, two hundred and nine such cases. In not a single instance had dangerous symptoms followed, and the average of success was a very large one. He had become firmly convinced that for dysmenorrhea and sterility the operation of rapid dilatation of the cervical canal would, except in some very rare cases of stenosis of the os externum, wholly supersede the cutting operation, the use of tents, or the slow dilatation by any means whatever. For, by the former, not only is the measure of success far greater, but the danger from inflammation is very much less. He dilated the parts from three-quarters of an inch to one inch and a quarter, as measured by the register in the handles, watching the cervix carefully to see what strain it could bear. His instrument could be opened to the width of one and a half inches, but he resorted to that extreme divergence only when wishing to introduce his finger for diagnostic purposes. This he could not ordinarily do unless the parts were relaxed from hemorrhage. Usually, however, when suspecting the existence of a polypus, he did not find it needful to pass in his finger, for after a moderate dilatation he introduced a fenestrated forceps and opened it at haphazard. In this manner he has repeatedly caught and twisted off a polypus without knowing it was present, the subsequent removal of the growth through the os uteri being the most difficult part of the operation.

DR. BAER was strongly impressed by the case of a lady whom he had delivered to-day, as to the advisability of entirely giving up division of the cervix. A year and a half ago he had slit up the cervix posteriorly, and to-day he felt very anxious, during the first stage of labor, as to the probability of laceration of the uterus, starting from the seat of the former operation. The anterior lip was very long, coming down under the pubis, and the posterior lip could not be felt. The case will be reported fully. When the uterus contains a

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polypus, the continued hemorrhages reduce the contractility, and a single dilatation will sometimes enlarge the os sufficiently to admit the finger or forceps; but, if the uterus is healthy, it contracts immediately after the withdrawal of the dilator. He could not recall an instance of inflammation following rapid dilatation. Sterility of long standing is seldom cured by dilatation or any other means.

DR. C. M. WILSON had seen recently in the practice of Dr. Ellwood Wilson a uterus, the cervix of which had been divided bilaterally some years ago. The operation had resulted in the development of the symptoms peculiar to a bad laceration of the cervix, with ectropion. Trachelorrhaphy was performed by Dr. Agnew, with complete relief to the patient. Dr. Wilson mentioned this case to call attention to the change in opinion and practice since Emmet proposed his operation.

DR. LONGAKER inquired as to the prevention of slipping of the dilator, and called attention to the original method of pressure over the fundus of the uterus.

DR. J. G. ALLEN has performed rapid dilatation more than seventy-five times, and has never seen any bad results from the operation. The blades of his instrument diverge as they separate, and there is then no disposition to slip out. The blades are more curved than in Dr. Goodell's instrument; he thinks that an advantage in holding the instrument in place. The handles are turned up so as not to touch the bed or table.

DR. GOODELL prefers the slight curve, so that in flexion of the uterus he can introduce the dilator with its curve reversed to the bend in the womb, and by opening the dilator in that position rectify the flexion of the organ. He prefers parallelism of the blades, because the stenosis of the cervix is greatest at the external os, and there is no need for dilatations above the internal os. He considers it dangerous to press the fundus of the uterus down while using the dilator, for fear of wounding or even penetrating the tissues, and he uses a strong tenaculum to hold the organ; but, since he had got Mr. Gemrig to roughen the blades by grooves, he had not been annoyed by the slipping of the instrument. He rarely finds it necessary to separate the blades more than one inch, but he sometimes does so to the extent of one and a half inches, especially when he wishes to introduce his finger into the uterine cavity.

DR. GOODELL exhibited two specimens of

PAROVARIAN CYSTS.

In each case the cyst was so detached from the ovary that the former could have been taken away without injury to the ovary. He was greatly tempted to practise conservative surgery in these cases, and leave the ovaries untouched; but, on account of apparently incipient cystic degeneration, they, also, were included in the ligature and removed. Both these cases were operated on in his private hospital, and both had recovered.

In his experience, the removal of parovarian or of broad ligament cysts was one of the most successful of operations. Out of a large number which he had performed, he could recall but a single fatal case, and in that the result seemed hardly due to the operation. The lady lived in a distant city, and he did not see her after the operation, which was a very easy one. At the end of a week the bowels were moved, the stitches removed, and everything gave promise of an unusually prompt convalescence. On the twelfth day, however, she was seized with uncontrollable vomiting, and she died on the seventeenth day. Six months previously she had had an analogous attack of vomiting, from which she barely escaped with her life. Thus far this year he had had eighteen ovariotomies, and this was the only fatal case among them.

DR. MONTGOMERY wished to ascertain the opinion of the Society as to the advisability of removing the second ovary when, in an operation for the removal of an ovarian cyst, the other ovary was found to be slightly diseased. In his first ovariotomy, performed in 1879, the second ovary was found to contain numerous small cysts; it was not removed, and the patient has since been twice pregnant, and there has been no appearance of another tumor, nor any symptoms referable to the remaining ovary. If the climacteric has been passed, there would be no question about it.

DR. BAER inquired whether tapping ever cured parovarian cysts. It was formerly reported as a means of cure. Do they always return after tapping? Would Dr. Goodell recommend tapping in undoubted parovarian cyst? He himself felt strongly inclined toward abdominal section in all cases. He thinks the second ovary should be removed when it is not healthy, as the idea of a second operation is very depressing to a patient.

DR. MONTGOMERY knew of one instance of parovarian cyst which had been tapped and had refilled seven times. It was finally removed by him by pulling out the cyst, as, on opening the abdomen, he found the tumor universally adherent. Only one ligature was required, viz., on the stump of an enlarged ovary, which bulged prominently into the cyst cavity.

DR. J. G. ALLEN considered that as an ovary somewhat diseased may give rise to a pregnancy, it should be left. We know too little about the probability of the development of small cysts into large ones. Until we have certain data on the subject, it must be considered a case of lack of information and knowledge.

DR. PARISH was in accord with Dr. Allen as to the want of knowledge. He has seen diseased ovaries containing numerous small cysts in many autopsies, and there had been no symptom during life to excite a suspicion of their existence. The existence of minute cysts cannot be considered as proving any liability to the production of large ones. If the second ovary contained a cyst as large as a partridge's egg, he would remove it; but if numerous cysts, as small as split peas, were present, he would not. The possibility of conception should be considered, as well as that of a cyst.

DR. GOODELL acknowledged the truth of the points made by Drs. Allen and Parish, and he believed that he had repeatedly removed the second ovary unnecessarily; yet the history of his own ovariotomies shows a return of the disease in the remaining ovary in about two per cent., and he thought he erred on the safe and right side. The social condition of the patient would always have a great weight with him. If an heir were wanted, or the patient were young, he would leave a suspicious-looking ovary, or try to remove the diseased portion of it. But in the majority of his cases, where there was any doubt, he removed the ovary. Of course, under such a rule, he must remove ovaries which might

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never give any trouble in the future. But the mental agony of women, when informed that the operation must be performed a second time upon them: and, on the other hand, the great joy and satisfaction of patients when assured, after the close of an operation, that both ovaries had been removed, have determined him that, other things being equal, it is better to remove the second ovary. As to the cure of parovarian cysts by tapping, his own experience is not sufficient yet to decide absolutely. He would advise the radical operation; but if the patient, after understanding the liability of return, wishes it, he would tap, as there is but little danger from tapping such cysts. A patient was tapped by Dr. Atlee, some twenty years ago; five years afterwards the cyst filled, and was tapped by Dr. Goodell. It then partly refilled, and so remained for a long while. The fluid then was gradually absorbed and never returned. He has had beside this two cases which he tapped, one four years ago, and the other three years ago, and there has been no return whatever of the fluid. On the other hand, he has had two or three cases in which the cyst burst spontaneously several times and yet refilled invariably. The rupture was followed immediately by some collapse, and pain and later by an excessive secretion of urine, with complete subsidence of the tumor. He had also heard of several cases of rupture, but, so far as he had learned the history of such cases, the cyst has always returned. The reports of the cure of ovarian cysts by tapping and injection of tincture of iodine must be true only of parovarian cysts.

DR. HARRIS knew of a case of parovarian cyst in which fourteen years had elapsed between the tapping and the subsequent refilling.

(*To be concluded.*)

NEWS ITEMS.

MONTREAL.

(*From our Special Correspondent.*)

SMALLPOX EPIDEMIC.—According to Dr. LaRocque's report recently published, there were, during the last three months, 315 deaths from smallpox; of these 270 were French Roman-Catholics, 27 Irish Roman-Catholics, and 18 English-speaking Protestants. Nearly three-fourths of the deaths amongst the French were children under five years of age,—unvaccinated, of course.

The Provincial Board of Health recently appointed by the Quebec Provincial Government, meets three times a week, but as yet has done little more. Nothing is said about compulsory vaccination. Isolation is advocated, as well as cleanliness, but apparently there is not backbone enough in the Board even to propose such an unpopular procedure as compulsory vaccination. Until compulsory vaccination is enforced, it will be vain to expect to control the epidemic. Certainly, the smallpox will not be banished by more thorough scavenging and the issuing of verbose circulars *advising* the public to isolate cases of smallpox, and to avail themselves of the privileges of vaccination, Six public vaccinators are scarcely enough to vaccinate a city of two hundred thousand inhabitants. Supposing each were to vaccinate 200 a day, it would take nearly six months to go through the city. Last week one of the public vaccinators, making house to house visitations in the French part of the city, could only persuade three people to submit to vaccination.

MCGILL MEDICAL SCHOOL.—The new medical building in connection with McGill University is rapidly approaching completion. It is intended to open it formally and publicly some time in October. The building is a most commodious one; new chemical, physiological, histological, and pathological laboratories have been added, and the dissecting room, library, and museum have been much enlarged. There are also two new lecture rooms, each capable of comfortably seating nearly 300 students.

THE NEW ORGANIZATION OF THE INTERNATIONAL MEDICAL CONGRESS—For the information of the profession, we herewith give a complete list of the officers of the proposed Congress as appointed by the Chicago Committee, and revised at the late New York meeting, the names of those who, so far as is publicly known, have declined to accept office under the new Committee, being printed in italics.

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(Abolished at the New York Meeting.)

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VICE-PRESIDENTS.—Drs. *A. L. Carroll*, of New York; J. L. Cabell, of the University of Virginia; J. B. Lindsley, of Nashville; J. E. Reeve, of Wheeling; J. N. McCormick, of Bowling Green, Ky.

SECRETARIES.—Drs. Walter Wyman, U. S. M. H. S.; G. H. Rohé, of Baltimore.

COUNCIL.—Drs. H. B. Baker, of Lansing; *Granville P. Conn*, of Concord, N. H.; *William H. Ford*, of Philadelphia; D. W. Hand, of St. Paul; *J. H. Kidder*, of Washington; J. H. Rauch, of Springfield, Ill.; J. H. Raymond, of Brooklyn; *Jos. R. Smith*, U. S. A.; Stephen Smith, of New York; *H. P. Wolcott*, of Cambridge, Mass.; J. B. Thornton, of Memphis; H. S. Orme, of Los Angeles; R. M. Swearingen, of Austin; H. Leffmann, of Philadelphia; C. M. Hewit, of Red Wing; E. L. B. Godfrey, of Camden, N. J.. W. L. Schenck, of Osage City, Kan.; Benjamin Lee, of Philadelphia; Dudley P. Hart, of Ark.; Joseph Holt, of New Orleans; W. S. Robertson, of Muscatine, Iowa; A. L. Gihon, U. S. N.; E. S. Elder, of Indianapolis; O. C. De Wolf, of Chicago; H. F. Lyster, of Detroit.

SECTION 14.—COLLECTIVE INVESTIGATION, NOMENCLATURE, VITAL STATISTICS, AND CLIMATOLOGY.

PRESIDENT.—Dr. H. O. Marcy, of Boston.

VICE-PRESIDENTS.—Drs. Jerome Cochran of Mobile; *Edwin M. Snow*, of Providence.

SECRETARY.—Dr. James F. Ford, of Chicago.

COUNCIL.—Drs. *Nathan Allen*, of Lowell; *R. A. Cleemann*, of Philadelphia; J. H. Hollister, of Chicago; James T. Reeve, of Appleton, Wis.; *James Tyson*, of Philadelphia; A. C. Hamlin, of Bangor; T. J. Allen, of Shreveport; A. T. Saball, of Jacksonville, Fla.; T. S. Hopkins, of Thomasville, Ga.; O. W. White, of Detroit; J. W. Parsons, of Portsmouth, N. H.; P. C. Remendino, of Santiago, Cal.; T. T. Minor, of Seatle, Washington Ter.; Chas. Denison, of Denver; H. C. Ghent, of Belton, Texas; *E. P. Hurd*, of Newburyport; E. W. Morley, of Cleveland; W. P. Hart, of Washington, Ark.; R. D. Webb, of Livingston, Ala.

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SECTION 15.—MILITARY AND NAVAL SURGERY AND MEDICINE.

PRESIDENT.—Drs. *D. L. Huntington*, U. S. A.; Henry H. Smith, of Philadelphia.

VICE-PRESIDENTS.—Drs. F. H. Hamilton, of New York; *Hunter McGuire*, of Richmond; *S. P. Moore*, of Richmond; Wm. E. Taylor, U. S. A.; P. O. Hooper, of Little Rock; E. Andrews, of Chicago; E. H. Gregory, of St. Louis; Donald McLean of Ann Arbor.

SECRETARIES.—Drs. B. F. Pope, U. S. A.; J. McF. Gaston, of Atlanta.

COUNCIL.—Drs. *D. Bloodgood*, U. S. A.; R. B. Bontecou, of Troy, N. Y.; *J. H. Brinton*, of Philadelphia, E. J. Marsh, of Paterson, N. J.; *C. H. Mastin*, of Mobile; George Peck, U. S. N.; W. F. Peck, of Davenport, Iowa; Charles Smart, U. S. A.; *J. Rufus Tryon*, U. S. N.; *A. A. Woodhull*, U. S. A.; J. W. Hamilton, of Columbus, O.; J. H. Murphy, of St. Paul; W. C. B. Fifield, of Boston; E. Goodman, of Philadelphia; W. S. Tremaine, U. S. A.; J. H. Peabody, of Omaha; S. T. Armstrong, U. S. M. H. S.

SECTION 16.—PRACTICAL AND EXPERIMENTAL THERAPEUTICS.

PRESIDENT.—Drs. *Horatio C. Wood*, of Philadelphia; F. H. Tirrell, of San Francisco.

VICE-PRESIDENTS.—Drs. *Robert T. Edes*, of Boston; *F. Peyre Porcher*, of Charleston; E. R. Squibb, of Brooklyn.

SECRETARIES.—*Drs. Edward T. Reichert*, of Philadelphia; *Robert Meade Smith*, of Philadelphia.

COUNCIL.—Drs. *Robert Amory*, of Boston; *Henry M. Lyman*, of Chicago; *Samuel Nickels*, of Cincinnati; Isaac Ott, of Easton; *D. Webster Prentiss*, of Washington; Charles Rice, of New York; *Charles H. White*, U. S. N.; *Thomas F. Wood*, of Wilmington, N. C.; G. Griswold, of New York; F. Stewart, of Cincinnati; J. M. Flint, U. S. N.; E. P. Fraser, of Portland, Oregon; W. G. Breck, of Springfield, Mass.; F. Woodbury, of Philadelphia; J. B. Van Velsas, of Yankton, Dakota; A. B. Tadlock, of Knoxville, Tenn.; J. F. Payne, of Galveston; T. Weed, of Cleveland; D. W. C. Wade. of Holly, Mich.; R. C. Moore, of Omaha; *G. M. Garland*, of Boston; —— Buddick, of Omaha; Wm. Comton, of Lancaster, Pa.

SECTION 17.—DISEASES OF CHILDREN.

PRESIDENT.—Dr. J. Lewis Smith, of New York.

VICE-PRESIDENTS.—Drs. *Samuel C. Busey*, of Washington; De Laskie Miller, of Chicago.

SECRETARY.—Dr. E. T. Williams, of Boston.

COUNCIL.—Drs. *F. Forcheimer*, of Cincinnati; *John M. Keating*, of Philadelphia; *Wm. Lee*, of Baltimore; John H. Pope, of Marshall, Texas; W. B. Atkinson, of Philadelphia; E. Walker, of Evansville, Ind.; W. A. Conklin, of Dayton, Ohio: W. F. Holt, of Macon, Ga.; G. K. Johnson, of Grand Rapids, Mich.; C. A. Leale, of New York; S. H. Charlton, of Seymour, Ind.; W. H. Doughty, of Augusta, Ga.; B. H. Riggs, of Selma, Ala.; H. H. Middlekamp, of Warrenton, Mo.; J. A. Hodge, of Henderson, Ky.; G. W. Moody, of Huron, Dakota; A. A. Horner, of Helena, Ark.

The vacancies in the different Sections caused by the numerous resignations were filled and "lists of Vice Presidents, Secretaries, and Councilmen for each Section were named by the Committee of Arrangements, but as it was not practicable to ascertain at once who would accept the places assigned them, or who of those who had been announced in the medical press as declining to accept positions before the present rules and organization had been adopted, as given heretofore, might wish to withdraw such declination, the final adjustment of these offices was referred to the Executive Committee of the Congress, and all correspondence in relation thereto was transferred to the Secretary-General of the Congress."

The rule concerning membership was altered so as to read "The Congress shall consist of members of the regular profession of medicine, and of such other scientific men as the Executive Committee of the Congress may see fit to admit, who shall have inscribed their names on the register, and shall have taken out their tickets of admission." An amendment was offered that all members of the Congress shall be eligible to election of office, but it was summarily rejected; the overwhelming sentiment of the Committee being that none but members of the American Medical Association, or of societies in affiliation with it, shall hold office in the proposed Congress.

PUBLIC OPINION ON THE CONGRESS OUTLOOK.—The Committee, we have every reason to believe, made no concessions which can be accepted as such. They filled the one hundred and twenty odd vacancies with gentlemen sufficiently unknown to fame to have escaped nomination by them before, and presumably sufficiently poor in spirit to accept belated honors.—*Medical Record*, Sept. 12, 1885.

It would be idle to attempt concealment of the fact that not only is the success of the proposed meeting of the International Medical Congress at Washington imperilled by existing dissensions in the profession of America, but that it is a serious question whether the gathering can be permitted to be held there at all. We are alive to the possibility that the curious arrangements entered into by the clique of the American Medical Association may be fully carried out; but at the same time we are perfectly certain that a congress convened under such circumstances will not be international in any sense of the word, but will develop into nothing more imposin than a magnified mutual admiration society. There is no longer any doubt that all the leading members of the profession in America will at such a gathering be conspicuous by their absence, or that European practitioners will fail to find any recompense for this fact in receiving attentions from gentlemen whose names they are unable to associate with the extension or perfection of scientific knowledge or the advancement of the art of medicine.—*Medical Press and Circular.*

As the matter now stands, any member of the regular medical profession in this country is entitled to a seat on the floor of the Congress, but none who have declared in favor of the New Code heresy are permitted to sit in a position the least elevated. The New Code men are now given the privilege of being full privates, but they are debarred from all possibility of occupying any position above the ranks. Whether the heretics will thank-

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fully accept the crumbs thus graciously thrown out to them remains to be seen. It is barely possible that they will not. Their admission to the Congress, they may possibly argue, is a concession that they are members of the medical profession of this country. This being the case, they may, in the obstinacy of their hearts, hold that no discrimination should be made against them in a Congress of the medical men of all countries, which is about to be held in this country, in pursuance of an invitation which was worded expressly to carry the idea that it came, not from any medical association, or other body of medical men, but from the medical profession of America, regardless of codes of ethics or aught else not strictly of a scientific nature. Had the invitation been issued by the American Medical Association on its own behalf, and not expressly on behalf of the entire profession, and as such been accepted by the last Congress, physicians not members of the Association would, doubtless, have felt complimented on being permitted to sit on the floor of the coming Congress. As matters actually stand, however, they may regard it as a piece of unwarrantable assumption when any medical society to which they may not belong seeks to lord it over them. They may be presumptuous enough to believe that they have quite as much right to share the honors of the Congress as has the Association which usurps the right to dole them out.

The Committee did a good work in rescinding the rule which closed the doors of the Congress against such members of the profession as hold independent views regarding the propriety of meeting in consultation those holding different views touching the action of drugs, and we cannot but regret that it did not also distribute among these gentlemen some of the honors of the Congress. Having acknowledged and attempted to correct the error of the Association in instructing it to exclude these gentlemen from the Congress, it should have gone a little further and removed all the obstacles to the complete success of the coming meeting.—*The Medical Age* (Detroit), September 10, 1885.

LUZERNE COUNTY (PA.) MEDICAL SOCIETY AND THE INTERNATIONAL MEDICAL CONGRESS.—At the stated meeting of the Luzerne County Medical Society held at Wilkes-Barre on Wednesday, September 9th, the following resolution, offered by Drs. Mayer and Guthrie, was discussed and then carried, but one vote being recorded in the negative:

Whereas, The International Medical Congress is a scientific body taking no cognizance of medical ethics or politics, therefore be it

Resolved, That it is the sense of the Luzerne County Medical Society that the officers and members of the Medical Congress should be the most eminent representatives of the entire regular profession of our country without regard to their views as to extraneous subjects.

Resolved, That the action of our brethren of Philadelphia, and of other cities, in declining to hold office in connection with the said Congress as now proposed to be organized, and in protesting against the method of its organization, is hereby heartily approved.

In seconding the motion for the acceptance of the preamble and resolutions offered by Dr. Guthrie, Dr. Mayer said:

I desire to state that I had intended presenting to you to-day other resolutions of similar tenor, but upon learning of Dr. Guthrie's purpose, will content myself with endeavoring to further the passage of these, which I so so highly approve.

This whole matter referred to in the resolutions, when compressed into a nutshell, would seem to be as follows: That the committee of our National Association originally appointed to secure a proper representation of delegates and committees for the coming International Congress, made selections which gave satisfaction to the best professional judgment of our country; that then certain aspiring and neglected members of the Association, conspired at the last moment to exclude from the appointed list a large number of men favorably known abroad and distinguished at home for their zeal and success in scientific labors, upon the plea that these gentlemen differed from the majority of the Association about ethical matters, well the subjects of legitimate controversy. They succeeded in their plot and in the enforced substitution for many honored names, of others comparatively obscure. This action has caused a profound sensation in medical circles, and has aroused the best sentiment of the country in opposition to this usurpation. A large number of the ablest, the purest, and also the most conservative members of our profession, including near at hand such lights as D. Hayes Agnew, Bartholow, Stillé, Leidy, Mitchell, and Pepper, and at a distance other prominent men in New York, Boston, Baltimore, the South, and the West, have combined in a protest against this action of the Modified Committee and have declined to fill the positions assigned to them unless the original status of things be restored. In the meantime some of the members of this Committee are inundating the land with proclamation and manifesto, and are endeavoring by public circular and private solicitation to whip and spur county societies and individual members into adherence to their views.

I trust that our Society will now speak "with no uncertain sound" and place its stamp of reprobation upon this despotic attempt of a few to coerce the many, and by a unanimous vote confirm the manly protest made by our distinguished brethren in behalf of all that is broad, high-toned, liberal, and free in American medicine. Its name has been soiled in the dust of corrupt medical politics. Let us do our little to help cleanse it.

REWARD OFFERED.—*The Kansas City Medical Record* offers to pay a liberal reward for a germicide that will destroy the microbes that were instrumental in ruining the International Medical Congress and weakening the vitality of the American Medical Association by their onslaught at New Orleans.

THE AMERICAN GYNECOLOGICAL SOCIETY will hold its Tenth Annual Meeting at the Columbian University, in Washington, on Tuesday, Wednesday, and Thursday, September 22, 23, and 24, 1885.

Among the papers announced to be read are the following: The Natural Hygiene of Child-bearing Life, by Dr. S. C. Busey, of Washington; Remarks on the Use of Tarnier's Forceps, by Dr. Ellwood Wilson, of Philadelphia; Facial Paralysis in the Infant from the Use of the Obstetric Forceps, by Dr. T. Parvin, of Philadelphia; The Genu-pectoral Posture in the Prolonged Nausea and Vomiting of Pregnancy, with Cases, by Dr. H. F. Campbell, of Augusta, Ga.; Two Rare Cases of Abdominal Surgery (The President's Ad-

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dress), by Dr. W. T. Howard, of Baltimore; The Care of the Perineum during Labor, by Dr. T. A. Reamy, of Cincinnati; Report of a Case of Cæsarean Operation, by Dr. E. W. Jenks, of Detroit; Puerperal Diphtheria, by Dr. H. J. Garrigues, of New York; A Modification of Emmet's Cervix Operation in Certain Cases, with a Case, by Dr. R. S. Sutton, of Pittsburg; Inflammation of the Parotid Glands after Ovariotomy, by Dr. William Goodell, of Philadelphia; A Study of an Unusual Type of Puerperal Fever, by Dr. Fordyce Barker, of New York; Peristalsis of the Genital Tract, by Dr. J. R. Chadwick, of Boston; Four Cases of Oöphorectomy, with Remarks, by Dr. Joseph Taber Johnson, of Washington. Members of the profession are cordially invited to attend the meeting.

SMALLPOX CASES IN MONTREAL.—There were 48 deaths from smallpox in Montreal last Sunday, and in the week ending on that day there were 128 deaths. Of these 118 were French-Canadian Catholics, five other Catholics, five Protestants, and 111 were under ten years of age.

In answer to a question last Monday the chairman of the Health Committee said that there were probably 800 cases in the city. A number of cases are reported in the suburbs adjoining Montreal. In a building called Noah's Ark, where twenty-four families live, five deaths occurred on Saturday, and one dead patient and seventeen live ones were removed from there on Monday last.

A meeting of the Citizens' Committee was held on Monday afternoon, when the inaction of the Civic Board of Health was severely criticised. A petition was then read which asked that the City Council grant to the Citizens' Committee what should be known as the Emergency Health Committee, and incorporate them with the Civic Health Committee. If this authority was granted they would within six hours begin complete isolation of all known patients, by the erection and completion within six days of additional temporary hospital accommodation. House to house inspection will be made to reveal unreported cases and to see that all persons are vaccinated. At the meeting of the Council it was decided to increase the Board of Health by five members and to add nine members of the Citizens' Committee to act in concert with them.

At a meeting of the Provincial Board of Health a regulation was passed granting to all health officials and medical men full power to enter all houses where smallpox might be supposed to exist, as well as factories, mills, and other establishments, and to order any measures which they may deem advisable to prevent the spreading of the epidemic. The Civic Hospital was taken charge of on Monday by the Gray Nuns.

The Finance Committee has granted $50,000 to stamp out the epidemic, and the Chairman has been authorized to give whatever sum the Health Board asks for.

THE NEW YORK STATE BOARD OF HEALTH is making arrangements to furnish vaccine virus for the purpose of vaccinating people all along the Canadian border of the State.

A PRIZE FOR THE BEST INSTRUMENT FOR THE IMPROVEMENT OF HEARING.—Baron Léon de Lenval, of Nice, has offered by occasion of the Third International Congress for Otology, a prize of 3000 francs for the best instrument (easily carried), constructed according to the principle of the microphone for improvement of hearing in cases of partial deafness.

Instruments of this description, intended for competition, are to be sent before the 31st of December, 1887, to one of the undersigned, members of the jury, appointed at the instance of Baron Léon de Lenval, by the Third International Congress for Otology. Such instruments only are admitted to compete as are completely worked out; at the examination the perfection of the mechanical construction, the right application of the laws of physics, and, above all, the power of improving the hearing will be taken into consideration.

The verdict of the jury and the awarding of the prize will take place at the Fourth International Congress for Otology, to be held at Brussels, in September, 1888. Should none of the instruments presented be found worthy of obtaining the prize, the jury reserve to themselves the right of keeping the competition open until the meeting of the next International Congress for Otology.

The members of the jury are Prof. Hagenbach Bischoff, Ph. D., M.D., Chairman of the Jury, Basle (Missionsstr. 20); Benni, M.D., Warsaw (16 Bracka); Prof. Burckhardt-Merian, M.D., Basle (42 Albanvorstadt); Gellé, M.D., Paris (49 Rue Boulard); Prof. Adam Politzer, M.D., Vienna (I Gonzagagasse 19).

OBITUARY RECORD.—DR. EUGENIUS A. HILDRETH, one of the most prominent physicians and citizens of Wheeling, Va., died, after a short illness, August 31, ult., after an active professional life of nearly forty years. He was a careful observer of atmospheric phenomena, and his writings on this and kindred subjects are particularly interesting and useful.

A cablegram dated London, September 12, announces the death of WILLIAM AUGUSTUS GUY, M.B., F.R.S., the eminent physician and author of a number of medical works. Dr. Guy was born at Chichester, England, in 1810. He was educated at Guy's Hospital and Pembroke College, Cambridge. In 1838 he was appointed Professor of Forensic Medicine in King's College, London. In 1846 he became Dean of the Medical Department, which position he held until 1858. In 1869 he was made Professor of Hygiene. Dr. Guy wrote many essays on subjects connected with public health and toxicology, and he was the author of a well-known textbook on *The Principles of Forensic Medicine*.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICES SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, FROM SEPTEMBER 8 TO SEPTEMBER 14, 1885.

MCKEE, J. C., *Major and Surgeon.*—Sick leave still further extended three months, on Surgeon's certificate of disability.—*S. O. 204, A. G. O.*, September 7, 1885.

PATZKI, J. H., *Captain and Assistant Surgeon.*—Assigned to duty as Post Surgeon at Jackson Barracks, New Orleans, La.—*S. O. 192, Department of the East*, September 9, 1885.

POLHEMUS, A S., *First Lieutenant and Assistant Surgeon.*—When relieved at Fort McDermit, Nevada, assigned to temporary duty at Presidio of San Francisco, Cal.—*S. O. 87, c. s., Department of California.*

KENDALL, WM. P., *First Lieutenant and Assistant Surgeon.*—Relieved from duty at Presidio of San Francisco, Cal., and assigned to duty as Post Surgeon at Fort McDermit, Nevada, relieving Assistant Surgeon Polhemus.—*S. O. 57, Department of California*, August 31. 1885.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLVII. SATURDAY, SEPTEMBER 26, 1885. NO. 13.

ORIGINAL LECTURES.

THE GROWTH OF A PROFESSION.

An Address, delivered at the Eighteenth Annual Meeting of the Canada Medical Association, held at Chatham, Ontario, September 2 and 3, 1885.

BY WILLIAM OSLER, M.D.,
PRESIDENT OF THE ASSOCIATION, PROFESSOR OF CLINICAL MEDICINE IN THE UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA.

GENTLEMEN: When I removed last year to another part of the great field in which, without distinction of race or country, we are all laborers, it seemed good to you, fellow-workers, in the kindness of your hearts, to nominate me President of the Association. If in the tumult of thoughts which come tumbling unbidden into a man's mind, the idea of such an honor ever came, truly it was as a speck in the horizon of my ambition towards which, as years rolled on, I might travel; but it has been ordered otherwise, and as exceptional circumstances have placed me in an exceptional position, I can but crave your indulgence in the exercise of an office for which I feel that I lack certain important qualifications.

Let me, in the first place, give expression to the general regret that the Association has not been able to carry out its programme and meet in Winnipeg as had been arranged, but with Mars in the ascendant, and Big Bear and Poundmaker on the warpath, our brethren of the prairie city thought it would be better—perhaps safer—to postpone the meeting in the Northwest unto a more convenient season, when grim-visaged war shall have smoothed its wrinkled front. But, again, let me express the satisfaction we feel at being able to meet here in Chatham among men we know so well, who have been so faithful to the Association, and in a section of the country in which the profession possesses so many able and industrious members.

In seeking for a theme upon which to address you, I felt that if we met in Winnipeg, some subject connected with growth and development would alone be in keeping with the remarkable progress which the Northwest and its capital have made during the past decade. I thought that by tracing the lines along which the profession in a new country should advance, the meeting might perhaps help the movement and give a stimulus to thought and action, which is often one of the best effects of gatherings of this kind. When circumstances necessitated a change in the place of meeting, it seemed as if my subject, upon which I had spent some thought, should also be changed; but, on reflection, it was evident that the conditions in the older provinces were only an advanced stage of those existing in Winnepeg and Manitoba—progress should be our watchword here as there, growth and development the essential features of our professional life, and upon these topics I could as well address you in Ontario as in the Northwest. I want then to tell you, in as few words as possible, just how far on we have got and what have been the methods of our progress. In some parts of the Dominion we may study the profession in its simplest form; in the Northwest Territories, for example, it has not advanced beyond the amœba stage. The doctors there are so many unicellular creatures—masses of undifferentiated professional protoplasm, without organization or special functional activities. They cannot even exercise the rhizopodal mode of multiplication, but increase by the low inorganic method of accretion. In the older Provinces, on the other hand, the professional units have combined for the general good into a sort of polypidom—the organized profession—a great advance on the amœba stage; there are special organs of reproduction known as the medical schools, and there are signs of a nervous system—medical societies.

The three aspects then in the growth and development of the profession to which I wish to direct your attention, are (1) the organized profession; (2) the medical school; and (3) the medical society:

1. The organized profession. In a well-arranged community a citizen should feel that he can at any time command the services of a man who has received a fair training in the science and art of medicine, into whose hands he may commit with safety the lives of those near and dear to him. For the State to regulate and determine the individuals to whom the citizen may apply, is not by most persons thought unreasonable. There are those, however, who would have no restrictions, but allow the utmost freedom and permit assumption and assurance to have full sway, and give to any man without special education the right to practise medicine. This has never been the case in Canada. The men who came here in the early days to practise medicine were chiefly English and Scotch licentiates, who brought with them the traditions and customs of the profession in Great Britain. Very many of them were army surgeons, accustomed by long training to system and discipline. Without medical schools, the only recourse for a young man wishing to enter the profession was either to cross the ocean or to serve an apprenticeship with and receive instruction from a practitioner. Boards for the inspection of diplomas of men coming from outside the country and for the examination of the young men who had passed the necessary time with local preceptors, were organized in the old Province of Quebec in 1788, and in Upper Canada in 1815—dates ever to be memorable in the history of medicine in this country.

It is a common experience that men do not always appreciate their blessings and advantages. Those who are the best off are the least sensible of it. I have often thought this of the profession in Canada in relation to the Medical Boards, when I have heard murmurs of discontent. As they constitute a special feature in the Canadian medical system, you will allow me to refer to their origin and functions at some length. Primarily, the Medical Board is simply a Bureau of Registration

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appointed by the State, as, in fact, the British Medical Council is to-day; but here, at an early period, before the establishment of schools and universities, it was an examining body as well, and granted permits to practise. As universities sprang up, the latter part of the duties of the Medical Board was in part abrogated, and the functions more or less limited to the registration of degrees. An exceedingly important change was effected when the boards became elective bodies, truly representative of the profession. In Ontario, this was brought about by the Act of 1866, and in Quebec, by the Act of 1847. In this province the mode of selection of members is truly democratic, the profession in each electorial district selecting their candidate. In the province of Quebec a more cumbrous and less distinctly popular mode is followed, whereby each constituent of a district votes not only for his own, but for the candidates in all other districts. As proxies are allowed, the entire election may be in the hands of any clique collecting the largest number, but this method is doomed, and the more popular one will shortly be introduced.

The struggle has all along been between the universities and the profession, as represented by the Medical Boards. The former have always maintained the right of their alumni to license without further examination—a privilege still granted in the Province of Quebec. But the universities chartered by the crown in past days did more, they opposed bitterly the incorporation of independent medical schools, as witness the hostility to the Montreal School of Medicine by the McGill University, and to the Toronto School of Medicine by the University of Toronto. Much of this opposition was based on the highest motives. The opponents were afraid that if numerous independent schools arose, each with licensing power, and the license recognized by the Provincial Boards, that free trade in diplomas would result, the standard be lowered, and the profession, as a profession, ruined.

As at present constituted, the Medical Boards are entrusted by law with full power to regulate medical education in the provinces, to say what preliminary branches shall be required, of what the curriculum shall consist, and to make such changes as from time to time may seem advisable. When we consider the conditions under which we live, these enactments are in the highest degree advantageous. There are in the Dominion eleven medical schools, many of which are corporations without any control, with faculties irresponsible as regards supervision by trustees, censors, or governors. Even of those which form actual parts of universities, the faculties are partly or altogether independent, and there have been several instances in which, for greater freedom, the benefits of university connections have been sacrificed. The inevitable result of such a state of affairs is keen competition. The students are few, the schools are many; expenses are heavy, receipts are light; human nature is frail—what will follow you know—restrictions are relaxed, special inducements are offered, gradually the standard is lowered, the meshes are widened, examinations become a farce, and the schools degenerate into diploma mills, in which the highest interests of the profession and the safety of the public are prostituted to the cupidity of the owners. The depths to which unlicensed competition will sink the proprietors of some institutions, pass the comprehension of a right-minded person. They will compass heaven and earth to gain students, resorting to measures of solicitation and inducements, various tricks, and artifices which would be deemed doubtful in a grave-yard insurance company. Finally, upon the proprietors of such schools comes a sort of moral paralysis, such a condition as divines call the hardened heart; when, incapable of seeing, much less doing, the right, they believe the system in which they work is a true and good one, and attempts at reformation become well-nigh hopeless. The picture is not overdrawn. Unrestricted competition between numerous schools means free trade in diplomas, and free trade in this sense is synonymous with manslaughter.

From this disastrous condition the medical boards have saved Canadian schools. Bitterly did the colleges fight against increasing the powers of the boards; jealous in the extreme of their chartered rights; and too often eager in obstructing, instead of furthering, useful legislation, they have found, though they did not know it, victory in defeat. The principle is sound and well founded; the united profession of a country or a province should be the guardian of its own honor; greater than the schools, which are but a part of it. The control of all matters relating to medical education and practice may safely be entrusted to its care.

The incorporated body of the profession in each province of Canada is variously known as the "College of Physicians and Surgeons," the "Medical Council," or the "Medical Board," and, as you are all well aware, by the Act of Confederation, each province is left to regulate its own educational affairs. Within the past ten or twelve years, so many important changes have been effected, particularly in the older provinces of Ontario and Quebec, that the boards are gradually approaching a state of efficiency.

As regards education, the ideal board should perform the following duties: 1st. Test the fitness of young men to enter upon the study of medicine; 2d. Order the curriculum in a manner best suited to the country and the requirements of modern medicine; and, 3d. Control absolutely the examinations for the license to practise. Upon each of these points I propose to make a few remarks, referring particularly to existing conditions:

1. Preliminary education and matriculation. In most of the provinces a thoroughly satisfactory system prevails, and a young man, before entering upon the study of medicine, must give evidence that his general education is of such a nature as will enable him to pursue intelligently the study of a learned profession. If the examination is satisfactory, he is permitted to register, and his studies date from this period. A board should control its own matriculation examination, and should accept no other. It is directly responsible to the profession that no incompetent person shall be admitted to study. The check comes lighter to a young man, and is more easily borne at this time than later in his career. The examiners should be independent persons, engaged in general teaching, and there should be at least three or four. No one man can conduct a preliminary examination with entire satisfaction. The organization of the board of matriculation examiners in Quebec should

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serve as a model for all the other provinces. It was a decidedly retrograde step when the medical council of this province relegated the entrance examination to other hands. And the acceptance of the intermediate High School certificate is not without its disadvantages. We want increasing watchfulness in this matter, and in the interests of higher education the boards should receive the cordial support of all the medical schools in their endeavors to effect an honest and satisfactory standard. That there has been laxity in the past, any one who has had to read many papers at examinations knows only too well. Throughout Canada the subjects for matriculation have always closely followed those recommended by the British Medical Council, and embrace the elements of a good general education, with a fair amount of Latin. To these special subjects have lately been added Natural Philosophy, Chemistry, and Botany (optional). The student has had in the past several difficulties to contend with which should be removed. He has had to pass in some cases two examinations: one before the board of his province, and the other before the university at which he wishes to take his degree. Now the matriculation examination of the boards should be placed on such a level, and conducted in such a way, that any university could consistently accept it in lieu of its own, and if it was universally recognized by the profession, by teachers of high schools, and by the candidates, that there was but one portal of admission to the study of medicine, and that through the medical board by means of its authorized examiners, a great deal of trouble and annoyance would be prevented. Again, in the interests of the student, the greatest care should be exercised in the selection by the examiners of subjects which the candidates will find taught in the advanced classes of the high schools. Similar books to those read for other matriculations should as far as possible be chosen. Lack of attention to these apparently petty details has caused no little irritation on the part of students and teachers.

Let me, then, urge upon you the importance of doing all in your power to put the preliminary education of the student on a good basis; it is in your own hands—insist on competent independent boards, responsible to your chosen representatives; and, what is equally important, impress upon your students and the young men who seek your advice, the need of careful preparation. As a result of some years of observation, I should say that the general practitioners throughout the country are not quite alive to their duty in this matter. Too often young men go up for their examinations imperfectly prepared, and just slip through, to flounder on, hampered at every turn by defective preliminary training.

2. The regulation of the curriculum. The general profession, through its delegates, has an incontrovertible right to regulate and frame the curriculum of study which men shall follow who aspire to join its ranks. The governments allow this right, and have empowered the Boards to frame such measures as they see fit. In the exercise of this function there has been a little friction in the past, and in no one of their duties will the Boards of the various provinces require to proceed with greater circumspection in the future. That there has been a good deal of tinkering, and not always of a satisfactory kind, is a complaint frequently made by schoolmen. That there has been very little and that the results have not been bad, will, I think, be the verdict of any one who looks into the matter fully. The curriculum is at present in a transition stage, and we must expect in the next few years to see important changes, but into these I do not propose to go in detail. One thing is clear, that the Boards and the teaching bodies must act in concert—in the interest of the student and of the profession harmonious action must be arranged. In this country the students of all classes seek the degree as well as the license and are not, as the majority are in Great Britain, satisfied with the latter. Hence the imperative need of a certain uniformity in the requirements of the boards of the universities. The teachers cannot possibly arrange the instruction on diverse plans. The duty of the Board is to lay down a minimum curriculum to which every student shall conform, and which the schools can easily carry out. The university requirements, while as much higher as the authorities chose to exact, should be laid down in the same lines, so that a student could easily proceed in his studies for the one or the other without inconvenience, and the teachers prepare a man for either examination without needless repetitions.

Fortunately the universities and teaching bodies are well represented—too well in Ontario in proportion to the territorial representatives—on the boards, and the introduction and regulation of the necessary changes in the curriculum will fall chiefly into the hands of their delegates, but there are many details which require careful attention on the part of all. The members of the educational committees of the boards have their work laid out for the next few years. Among important questions which await settlement in some of the Provinces are the strict enforcement of the four years of study and the advisability of prolonging the session to nine months, or, what amounts to the same thing, making the summer session compulsory. The plan of allowing a student to pass one of his four years of study with a physician should be done away with at as early a date as possible. For two reasons: in the first place, it is, in a majority of instances, a farce, and we find on inquiry that the student has been pursuing his usual avocation, and perhaps going to a doctor's office in the evening: it is certainly not the equivalent of a session at college. If allowed at all, it should not be the first year, but the third, as permitted in the Province of Quebec, for then a student is in a position to obtain really valuable instruction in practical medicine and surgery from his preceptor. I was surprised, a few years ago, on obtaining the statistics from the registrar of one of the boards, to find how many men there were who passed on the three sessions. In this matter, the boards should not be behind the leading universities, which no longer recognize the year with a physician as the equivalent of a session. And, in the second place, the change should be made in the interests of the schools themselves. On no possible scheme can you arrange a satisfactory three-session course. Either a man pays too much attention to his primary subjects in the first two sessions and leaves the important final branches for one short session, or he tries in his second session to work hard at both and ends in a muddle-pated condition which unfits him for either. The prolongation of the session to nine months, as now exists in some of the schools in the Province of Quebec, must ultimately come

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in all the colleges. How the foolish habit arose of giving six months' vacation we need not stop to inquire—the folly of it is too evident to need remark; and we can safely predict that within ten years the nine months' course will be universal, either as a continuous session, as at Laval University, or by making the now optional summer session compulsory.

3. The control of the licensing power is the most important function of the medical boards. Acting on behalf of the State, it is their duty to see that all candidates for the license are properly qualified. They stand as the guardians of the public and of the profession, and here their responsibilities are indeed great. In the ideal condition, there should be but one portal in each country through which a man can enter the profession and legally exercise its rights—a uniform standard of qualification to which each one must conform. This is secured in some countries by the direct action of the State, which appoints examiners for the purpose. But a better system is that which we have here reached, in which the State entrusts the incorporated profession with the duty. On this question the hottest battles of the profession have been and are being fought. The universities and chartered colleges have contested, inch by inch, the rights of the profession in this matter, and the struggle has not everywhere concluded. The possession of a degree in medicine from a university, no matter how reputable, cannot on any reasonable ground carry with it the right to registration and practise. The schools are independent bodies, outside, in a large measure, of State, and altogether of professional, control; they are numerous, and the competition between them is close; the requirements for graduation are variable, and the standard of examination unequal. They are close corporations, and neither the public nor the profession ever know what transpires in their councils. In the majority the teachers are also the examiners. Such a state of things can only lead to relaxation, and is fraught with danger to the best interests of all concerned.

A uniform system has not yet been adopted in all the provinces. In too many the possession of a degree, obtained after a proper course of study, still entitles the holder to the license, all others having to submit to examination. In the Province of Ontario the most advanced position has been reached, and the one road to registration is through the examination conducted by a board appointed by the medical council. To this the other provinces must ultimately come. It is what the profession in Great Britain has been striving after for years, and so far striving in vain against the power of corporations and vested interests. In the Province of Quebec the medical board accepts degrees from the local universities to which it sends assessors—after the manner of the British Medical Council, who report on the nature of the examinations. Others than the holders of such degrees must submit to examination. Although this method has not worked badly, it is but a makeshift, and must finally be replaced by a central board of examiners, who shall test the qualifications of all candidates. Unfortunately the prevalent conditions of that province are such that dual boards will be needed, one for the French and one for the English.

In carrying out the details of a central examining board, there are inevitable difficulties which at first cause worry and discontent, but, with patience and mutual forbearance, gradually vanish. The choice of suitable examiners is a delicate matter, and one on which the schoolmen are apt to air grievances more or less just. They certainly should not be selected at random from the members of the council. A few years ago a friend of mine was nominated examiner in chemistry at the Quebec Board. He was a remarkably able practitioner, with a very indistinct and hazy knowledge of chemistry, and it was hard to say who was most uneasy at the examination, Dr. ——— or the students. Teachers in the schools have good grounds for complaint when the Boards select as examiner on special subjects—such as anatomy, chemistry, physiology, and pathology—men who have been for years in active practice without any possibility of keeping their own knowledge on these subjects fresh and practical, and who to "brusk up" require to work as hard, may be, as the poor candidates. With the more practical branches these difficulties do not exist, and the Councils have a wide field for selection. Where special technical knowledge is needed, it would be preferable even to override the law which forbids the selection by the Boards of any teacher as an examiner on his own subject. For the "Staats Examen," in Germany, the professors in different departments are usually chosen by the government to conduct the examination in their special branches. The point is one to which the Boards should attend carefully in the future. They lose the respect of the profession and of the students in nominating as examiners men without special qualifications in certain fields.

The examinations for the license should be made in all respects as practical as possible, but to do this a Provincial Board must possess its own building and appliances, and make arrangements with hospital authorities to have free access to a sufficient number of patients. As the work is done primarily in the interests of the public, it is clearly the duty of the Legislatures to assist in making suitable provision, and it seems probable that Ontario, the first to set the example of a one-portal licensing system, will also be the first to have a local habitation worthy of her incorporated profession. Such a building should contain the paraphernalia necessary for examination purposes. The division into a primary and a final examination, as at present made in most of our universities, and at the Ontario Medical Council, seems the best arrangement. The former embracing anatomy, physiology, general and medical chemistry, and materia medica; the latter, the practical branches of medicine, surgery, and midwifery. In practical details the "Staats-Examen," of Germany, might in many particulars be followed.

A serious difficulty has been felt in conducting the examinations satisfactorily as regards time, place, and rapidity. They should come off after the university examinations have been completed, and not, as now, immediately at the close of the session. More time could then be given, which will be necessary if the tests are to be made more practical. As the number of candidates increases, the examiners on each branch should be doubled. One centre in each province should be chosen for the sittings of the Board, and in almost each instance this will be the chief town. To go to Quebec for one meeting and Montreal the next,

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as is the practice in the Province of Quebec, and to hold an examination in Kingston as well as in Toronto, are touching and tender tributes to age with which a harder generation must soon dispense.

Very much more time must be hereafter given to those practical portions of the examinations which afford the only true test of a man's fitness to enter the profession. The day of theoretical examinations is over.

Permit me to refer to one or two other questions in connection with the medical boards. An anomaly which has been the source of no little irritation results from our close connection with the mother country. Any registered practitioner of Great Britain under the present British act can claim registration in the colonies without further examination. For some years Ontario contested the right, but it was finally settled by the registration of Dr. E. St. G. Baldwin, in 1879, and Dr. A. E. Mallory, in 1880, since which time many have been entered on the register without examination. The Medical Bill which was shelved last year in the House of Commons contained a clause permitting the colonies to make any regulations they pleased concerning registration, and doubtless a similar proviso will appear in any future bill. The objections to receiving British registration are precisely those made against the reception of Canadian registration in Great Britain. The examinations are conducted by corporations with varied standards, of whose proceedings nothing is known, and over which no control can be exercised. But in Ontario the shoe pinches badly in another way. After graduating, students are enabled to give the Board the slip by taking an English or Scotch qualification, and registering in Great Britain, when they return and are entered upon the register without further examination. The objection to this lies in the fact that many men have evaded the just regulations of their province and returned with British registration, when even they could not have qualified for examination at the Ontario Medical Board. With few exceptions, Canadians seek in Great Britain the easier qualifications, particularly the license of Edinburgh Colleges. At some of these the custom has been with Canadian graduates to examine the parchment, accept the University degree, and admit the candidate to examination without any further inquiry. To avoid an injustice, the British licensing bodies must examine the matriculation certificate, and have satisfactory proof by class tickets that a student has spent four years in the study of medicine. Under these conditions registration in Ontario on a British certificate would be no hardship, though there would still be the unfair discrimination against the local institutions.

Through the kindness of Dr. Pyne, the Registrar, I am able to give you some figures bearing on this question. In the past five years 378 men have registered in the Province of Ontario, and of these there were 93 Canadians, who did so on their British registration; that is to say, about one-fourth of the number have avoided the enactments of the Board by proceeding to Great Britain and passing at one of the Colleges. No one can doubt that these 93 men were greatly benefited by the period of additional study and by contact with men of other schools and countries, but they would have been still more benefited if they had first conformed to the requirements of their own province, and aided the profession in maintaining regulations the benefits of which are universally recognized.

The fees demanded by the boards excite a good deal of grumbling on the part of students and practitioners. A sum of $70 is charged by the Ontario Board for the three examinations, matriculation, primary, and final; and in Quebec the registration fee is $20, and the matriculation $10. It is the old story, those who are best treated often complain the most. In the matter of fees, the medical students of Canada are in too easy a position, and they must expect changes in the near future. While the expenses of conducting a medical school have quadrupled in the past twenty-five years, the fees have not increased ten per cent. The charges of the boards are just and reasonable, as well as necessary to meet expenses. The annual tax on physicians of $1 in Ontario and $2 in Quebec, is often spoken of as irksome, but surely it is a trifling contribution to the general welfare of the profession.

It seems extraordinary to outsiders that in a country like Canada, with scarcely five millions of inhabitants, there should be so many licensing boards, and a still greater anomaly, that a licentiate in one province cannot practise in another—that there should be no reciprocity. So it seemed also to many earnest minds a decade or so ago, when in this Association a strong attempt was made at several meetings to frame a Dominion Medical Bill. It failed, as will, I think, subsequent ones, should they be made. Only one remedy remains, the boards of the various provinces may in time so assimilate the curriculum and examinations that reciprocity may become possible, but this we cannot expect for some years. For certain purposes a Dominion Registration Bureau at Ottawa seems specially indicated; thus the surgeon of a Quebec regiment doing duty in Ontario would be practising illegally, and in the marine, the surgeons sailing in the passenger steamers must be registered in the province of the port from which the vessel hails. There would be great if not insuperable objections raised to any such bureau, though it might be feasible to devise a plan for the military surgeons and those belonging to the mercantile marine.

I have dealt thus fully with the constitution and functions of the medical boards of the provinces, because I feel convinced that the safety of the profession rests with them. Of inestimable service in the past, their work in the future will be even more beneficent. Do arouse to a sense of your professional advantages. Where else do the medical men of a country enjoy the rights of conducting their own affairs in their own parliament? Look at Great Britain, where our mighty sister Association, with all her influence, and backed by eleven thousand members, could not force the principle of professional representation into the last medical bill, and at the best was only able to secure three or four members from the profession at large. Rest content, when in each Province of this Dominion you have (1) an elective representative assembly (medical board, council, or college), with members from each teaching body; (2) absolute control of preliminary qualifications, curriculum, and examinations for the license to practise; (3) appropriate accommodation for the meetings of the boards, for the conducting of examinations, and for preservation of the local and general archives of the

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profession. The full development of the Acts of 1788 and 1815 will not be reached until these things are accomplished. The first two you have already won in a majority of the Provinces, the last will perhaps be the most difficult of accomplishment; but I feel confident that the day is not distant when in the capital of each province the incorporated profession will have a stately Æsculapian temple worthy the traditions and aspirations of our high calling.

And here I may reasonably conclude this portion of my theme, which is concerned particularly with the relations of the profession to the community, but I will dwell upon one point. I began by saying that in a well-ordered State every citizen should feel that he has near at hand well-trained men, to whom in the hour of need he may turn with confidence, and ask aid for himself, his wife, or his little ones. That throughout Canada this condition exists, that the community is to-day served by capable and well-trained men, that within reach of the poorest in our smallest villages there is an honest, capable physician, that impostors and charlatans are few; these, gentlemen, are some of the blessings for which we may, lifting both hands to heaven, thank our Medical Boards.

To another important relation of the medical profession to the community I can but briefly refer. One of the most remarkable developments of modern medicine has been the direction of the study of the causes and mode of prevention of epidemic diseases. The principles of preventive medicine have been gradually receiving due recognition on the part of the public, and the necessity for organized effort is generally acknowledged. In this province the effort has resulted in the establishment of the Provincial Board of Health, which is doing a great work, and should receive the active support of the public and the profession. The successful course which it has pursued during the past four years affords a stimulus which the other provinces must sooner or later feel, and sets an example which for very shame they must follow.

2. The medical school. In the progress and development of a profession, the medical school plays an important and essential part. The primary object is the training of young men in the science and art of medicine, to supply the community with fit and proper persons to take charge of the sick and injured, and it is with this aspect of a medical school that the public is naturally concerned. In most European countries the State, as guardian of the public weal, undertakes the control of medical education and subsidizes largely the medical faculties of the universities. In Great Britain this is also done to a slight extent, but everywhere on this continent the schools have arisen as a result of private enterprise. The origin and evolution of the medical school in this country are quite easy to trace. For many years private tuition was the sole means of obtaining a medical education, and the system of apprenticeship prevailed to a large extent. In a series of "grinds" or "quizzes" the preceptor would take his pupils over the whole range of medicine and surgery, and a knowledge of anatomy was obtained by private dissection, which was carried on extensively. The office practice and the daily round furnished clinical material. The student was much with his preceptor, became his friend and companion, and in the course of four or five years, sometimes less, grew really very proficient in the practical working of his profession, and felt prepared to present himself before the Provincial Board. Some of the very best practitioners we have had in Canada received their medical education in this way. Take the Medical Register of Ontario or Quebec and seek out the names of the men which have simply Lic. of the Med. Bd. of Upper Canada or of Lower Canada after them, and we find among them many of the men we know best and respect the most highly. Without doubt, in good hands, the old system had great advantages; the essential, useful, and practical details of professional life were well taught; for the refinements and superfluities, the busy physician found no time. Among the private teachers before medical schools became generally accessible, were some notable men whose names deserve to be mentioned in grateful remembrance. Dr. James Douglass, of Quebec, was a remarkably successful as well as popular teacher, and his pupils had the great advantage of the Marine Hospital. He still lives in peaceful retirement, one of the few links uniting the profession of Quebec to a generation long past. The late Dr. Rolph, from the date of his removal to Toronto in 1831 until the foundation of the Toronto School of Medicine in 1843, was one of the most energetic and successful private teachers, and many of his pupils of that date now occupy prominent positions among us. Even after the troublous times of 1837, when he had to cross the border, the students followed him to Rochester.

The organization of the first medical school arose from the association of two or three men engaged in private teaching, who thought that it would be more advantageous, and save time, if each one taught one or two branches. In 1824, at Montreal, Drs. Stephenson, Holmes, Caldwell, and Robertson gave the first definite course of lectures in medicine delivered in this country. This "Medical Institution," as they called it, became, in 1829, the medical faculty of McGill College, and remained for many years the only medical school in the country. The next attempt was a much more ambitious one. As early as 1835–6 efforts were made to induce the government of Sir John Colburn to establish a faculty of medicine in King's College, Toronto, and elaborate plans were prepared, but nothing came of it until 1843, when a faculty was organized with a full and able staff. A more favorable inauguration of a medical school could not have been devised; with State aid, well-trained and efficient professors, who were in the receipt of salaries ranging from £225 to £350—fine emoluments for those days. From all I can gather, the school was a thoroughly efficient one, and did good work in medical education, but the professors made certain mistakes for which they paid heavily. In opposing the incorporation of the Toronto School of Medicine, which had been organized by Dr. Rolph in 1843, they acted most injudiciously, laid the foundation of future trouble, and too many of them were hostile to the profession in their desire for a better medical act. After an existence of ten years, an act of the Legislature left the University of Toronto with only the academical department, and swept away a medical school which, whatever its faults, had in it the elements of ultimate success, and left the profession and the public at the

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mercy of irresponsible schools without foundations and dependent on private enterprise. There can be no doubt that the abolition of the faculty of medicine of the University of Toronto retarded seriously the growth of the profession in this country. The establishment of a well-equipped institution would have been an example and a stimulus to others, and as years passed, the difficulties inevitably associated with the first few years of existence would have vanished.

In 1843 the Montreal School of Medicine and Surgery was founded, and continues as the largest French school in the Dominion. About the same time the St. Lawrence School was started in Montreal in opposition to McGill College, but it had a short life and soon expired. The Quebec School of Medicine next started and become, and continues as the medical faculty of Laval University. In Toronto a third school was added to the existing ones in 1850 by the establishment of the Upper Canada School of Medicine, which, in its first session, became the medical faculty of Trinity College, and after an existence of three or four sessions, ended by the resignation of the professors who refused to submit to certain vexatious test enactments of a religious nature demanded by the corporation. The faculty of medicine of Victoria College was next established in Toronto, for years known as Rolph's School; it terminated its existence in 1869. The Kingston School, organized as a faculty of Queen's University, is now known as the Royal College of Physicians and Surgeons. The faculty of medicine of Bishop's College, Lennoxville, P. Q., was organized in Montreal in 1870. In the same year the faculty of medicine of Trinity College was reorganized and exists now as a separate corporation known as Trinity Medical School. The Medical School at Halifax is the only one which has been started in the Lower Provinces.

The most recent additions to our list have been the Branch of Laval Medical Faculty at Montreal, 1877; the faculty of medicine of Western University, London, Ont., and the faculty of the University of Manitoba, both organized within the past few years; and in 1883, as the outcome of an unfortunate contretemps at Kingston, a School of Medicine for Women was started in that city, and followed by the establishment of another for the some purpose in Toronto.

Of this latest development, there cannot but be a feeling of regret that our friends in these cities should have entered upon undertakings so needless in this country. It is useless manufacturing articles for which there is no market, and in Canada the people have not yet reached the condition in which the lady doctor finds a suitable environment. Look at the facts as they are; even the larger cities can only support one or two; in fact, Quebec and Montreal have none, and in the smaller towns and villages of this country she would starve. For the sake of educating six or eight women annually, of whom at least three or four will go abroad, two more medical schools have been established with full staffs of professors and teachers. We can but hope that at the expiration of the five years for which kind friends have guaranteed the expenses, the promoters of these institutions will be in a position to place their energies and funds at the disposal of the schools devoted to the sterner sex. Do not understand from these remarks that I am in any way hostile to the admission of women to our ranks; on the contrary, my sympathies are entirely with them in the attempt to work out the problem as to how far they can succeed in such an arduous profession as that of medicine.

Exclusive, then, of the schools for women, there are existing eleven teaching bodies throughout the country, three French and eight English, a goodly number to supply the wants of about five millions of people. In Great Britain, with a population of thirty-five millions, there are about 34 medical schools, and in the United States, with a population of fifty millions, there are 139 schools conducted in the interests of the regular profession, so that in comparison with these countries we are very abundantly supplied.

The youngest among us may have watched the incubation and birth, and many of us the gradual growth and development of a medical school. With scarcely an exception every one which has started owes its origin to the individual exertions of members of the profession. There are men present who could tell us that the task is not a light one to-day, but what must it have been to those who began the work fifty or sixty years ago? It was an unending struggle against serious obstacles and difficulties. Money had to be raised for buildings and apparatus, and with but few students and small returns, the marvel is not that only four have succumbed in the struggle, but that so many have survived. The internal difficulties are often the most serious; the brunt of the work in such enterprises always falls on one or two zealous men who have to carry the chief part of the load, and the dead weight of lethargic colleagues has been the heaviest burden to many an ardent spirit.

Debt is the millstone which keeps the young schools under for many years; borrowed money furnishes the appliances, etc., and even in the older schools each addition to the buildings means so much more interest to pay. In only one or two of the faculties connected with universities have the governors even furnished suitable accommodations. The financial condition is for years oppressing, and from session to session the school drags on, living from hand to mouth, barely able to meet liabilities and pay the teachers—at this stage most probably not at all. As the number of students increases so do the finances improve, and, if a school proves popular, the debts may be paid off and the professors receive fair remuneration, but, so long as the attendance is limited, the receipts are only such as will barely meet the expenditures. A difficulty which under the present circumstances seems insuperable, is the fact of absolute dependence for success upon the number of students; small classes mean restricted capabilities for teaching, spiritless instruction, low-spirited professors, and general discontent, particularly on the part of the faculty. Large classes mean perhaps the opposite of all this, but not always; still there is a cheeriness about a professor the benches of whose classroom are well filled. I have known a small entry depress for the session the spirits of a man whose estimation of everything was numerical.

Let us glance at the facts as they stand. I estimate that last season there were in the eleven Canadian schools about 900 students, from whom, with trifling ex-

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ception, the entire support of the institutions was derived. Four of the eleven institutions are greedy enough to attract at least 700 students, leaving about 200 to be divided among the seven other schools. With the low scale of fees at present in vogue, I doubt if each student paid more than an average of $80 per annum for instruction, so that the total receipts at the number of students above mentioned would be about $70,000, of which at least $55,000 goes to four of the schools, leaving a balance of not more than $15,000 to be divided among the remaining seven. Now, a modern school of medicine is a serious affair to undertake and equip; there are branches to be taught which require, even in the smallest schools, plenty of room and good apparatus. Laboratories for the practical teaching of chemistry, histology, anatomy, pathology, and physiology must be provided, and arrangements made for library and museum purposes. Personal expenditure on the part of members of the faculty can alone supply these in some of the schools, and in almost all the rule has been that each lecturer from his fees shall provide his own teaching outfit. Where the teacher has enthusiasm and a purse this may work well, and indeed does so sometimes, for I know of an instance of an outlay of over two thousand dollars in apparatus, and of another in which the personal laboratory expenses were always between five hundred and one thousand dollars annually. As matters have been in our schools heretofore, without personal expenditure laboratory equipment has been defective. The remarkable impetus which has been given of late to practical teaching has increased very much the expense of conducting a school, for not only have the laboratories to be provided, but special men must be forthcoming with special training. The general practitioner who has for eight or ten years been busy at practical medicine and surgery may step into the professor's chair and give a good, sensible course of lectures; but to conduct laboratory work demands careful and prolonged training, which costs much money, and when obtained has a market value.

One great evil which results from this condition is the competition for patronage among the schools, which I have already alluded to as a danger to be carefully watched by the profession. Too many of the students enter upon the study before they have means sufficient to carry them through the entire course, and they seek special inducements, reduction in fees, exemption from attendance until Christmas, and will often in letters set off one school against another in a most amusing way. Think, gentlemen, to what the unrestricted competition among eleven schools for 900 students might bring the profession! It would be a struggle for existence in which the public and the profession would certainly be the losers, but with the wise regulations already referred to, existing in each province, the competition is reduced to reasonable limits, as all students, irrespective of their schools, must virtually pursue the same plan of study and for the same length of time.

What is the remedy? The small schools have rights equally with the large; they cannot be asked to immolate themselves in the interests of more favored institutions. It is plainly within the duty of the provincial boards to inquire into the equipment of the teaching bodies, and they should refuse recognition to those which have not appliances fit to conduct a modern medical course; or, what would be better still, the medical boards should have the power of prohibiting the establishment of a new school until satisfied that its promoters had money sufficient to begin such an enterprise, and had suitable buildings and hospital accommodation. In the future one of two things will take place: either a considerable number of the small schools will die of starvation—for it is quite evident on the above financial statement, which is approximately correct, that there are seven existing on class fees which could only support one, and that in a not very flourishing manner—or means must be devised to secure funds from other sources. That there are superfluous schools in the country, no one can deny, and the death of three or four under present circumstances would be no loss to the profession or the public; but if all could be furnished with suitable clinical and scientific equipments, they would then prove a source of strength, not of weakness. Dependent solely on class fees, the smaller schools, even with the self-sacrifice of professors which I know of in many instances, cannot hope to keep up with the modern requirements in medical teaching, and the larger schools, with their increased expenses and increased salaries, are really not much better off. The time has come when we should lay clearly before the public the needs of higher medical education. The full development of a school cannot be reached without extraneous aid. To build laboratories and provide costly apparatus require sums quite outside the power of the faculties or the professors to supply. We should learn a lesson from our brethren of the clergy. Ask in Toronto and Montreal the purpose of so many beautiful and costly buildings clustering about the universities of these towns, and we are told they are the divinity schools, in many instances erected at the cost of individual donors. The number of men in this country is rapidly increasing who have money to give where they see it is needed and will be profitably employed; and if those interested in medical education bestir themselves actively, suitable endowment can be obtained. We have not asked before—in careless unconsciousness of our needs—but we must ask now and ask earnestly. The successful appeal for $100,000 made last year in Montreal is at once an indication and an encouragement. There are strong, enlightened men among us, like the Hon. Donald A. Smith, who feel, with Descartes, that the hope of the amelioration of many of the ills of humanity lies within our profession, and that it is a public duty and privilege to assist in making our colleges true seats of learning, as well as schools of sound instruction.

3. The medical society. In a young country the organization of medical societies is associated with serious difficulties. In cities practitioners can easily meet together, but in communities scattered over a wide extent of territory, like Canada, general societies are not readily established. Thus we find that several attempts were made to organize a Canadian Medical Association, but without success until the confederation of the provinces in 1867. In 1845 the Medico-Chirurgical Society of Montreal sought to secure a Provincial Medical Association, and called a conference of delegates from the societies in the city and district of Que-

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bec, and the district societies of Niagara and Toronto. A meeting of the delegates was held on the 20th of August, but the scheme was unfortunately frustrated. In 1850 the same Society again sought to unite the profession of Canada in a British-American Medical and Surgical Association, and on July 10th, at Three Rivers, a preliminary meeting was held, at which a constitution and short code of by-laws were adopted. Dr. Morin, of Quebec, was elected President, and Dr. Hall, of Montreal, Secretary, and the first general meeting was arranged to take place in Kingston on the second Thursday of May, 1851. I do not know that it was ever held; the journals of the day are silent on the subject.

At the instigation and call of the Quebec Medical Society, a meeting was held at Laval University on October 9, 1867, to consider the advisability of establishing a Canadian Medical Association. The organization was successfully effected, and the first meeting was held in Montreal in 1868 under the Presidency of Doctor, now Sir Charles, Tupper.

Among the objects which the promoters sought to effect by united effort was satisfactory and harmonious medical legislation, and we find that, for the first four sessions the time of the Association was chiefly occupied with the framing of a Dominion medical bill, which ultimately proved an impracticable measure, and was dropped. The subsequent meetings have been devoted to more legitimate topics of discussion, and we have reached a truer conception of the objects of our annual gatherings. We are all agreed, I think, that the highest work which an Association such as ours can undertake is the promotion of the scientific and practical aspects of the profession. To these meetings the best minds among us should bring their best thoughts, that, by the reading and discussion of papers, we may be mutually benefited. Every member can bring something. One great attraction in our profession is its freshness and novelty. Each one of us has had, since our last meeting, opportunities for the study of problems in disease, new, perhaps unexpected, and which may not occur to us again. Material for original work and research lies in the daily round of each one, awaiting only the spirit of patient and earnest inquiry, lacking which we cannot wonder that men deem the practice of medicine dull, stale, and flat. Every one should come to learn, and of necessity brings with him something he can teach, for in certain points his experience supplements what is wanting in another's. To our gatherings all teachers in our schools should come to meet their brethren and give to them an account of their stewardship—for do they not hold their positions in trust?—and show by their work and ways that they merit the confidence reposed in them. The more we foster the scientific features of our gatherings, the more succes ful will the Association be. It has been so with our sister associations in Great Britain, and in France and Germany the corresponding societies form sections of the general associations for the advancement of science, and the meetings are devoted exclusively to work.

By no means the smallest advantage of our meetings is the promotion of harmony and good-fellowship. Medical men, particularly in smaller places, live too much apart and do not see enough of each other. In large cities we rub each other's angles down and carrom off each other without feeling the shock very much, but it is an unfortunate circumstance that in many towns the friction, being on a small surface, hurts; and mutual misunderstandings arise to the destruction of all harmony. As a result of this may come a professional isolation with a corroding influence of a most disastrous nature, converting, in a few years, a genial, good fellow into a bitter old Timon, railing against the practice of medicine in general, and his colleagues in particular. As a preventative of such a malady attendance upon our annual gatherings is absolute, as a cure it is specific. But I need not dwell on this point—he must indeed be a stranger in such meetings as ours who has not felt the glow of sympathy and affection as the hand of a brother worker has been grasped in kindly fellowship.

There is special need in this country for such an association. With scattered and isolated provinces, self-governing, and regulating their own affairs, this organization is the sole bond of professional union. At these meetings we are neither of Ontario nor Quebec, of Manitoba nor Nova Scotia, but of Canada, and the narrower provincial spirit is lost in a wider national feeling. In the future development of the profession this body must take an ever-increasing share. It has difficulties to contend with of a geographical nature, as the distances between our provinces are so great, but these must not be considered. A peripatetic association always labors under certain disadvantages, but these we have in common with similar bodies in other countries. The provincial medical societies which have been established, supplement the work which we do and are a source of strength. We regret that there are still one or two provinces without such organizations. The district societies throughout the country are becoming more and more vigorous, and physicians are everywhere recognizing the advantage of coöperation in the study of our profession.

Let me refer to two other matters in conclusion. In selecting the place of meeting the Association should be guided by what is thought best for the interests of the profession, and it should be distinctly understood that when we meet at any place the sole business of the local profession is to arrange suitable accommodation; and this Association must set itself strongly against past practices by which the profession of a place has been heavily taxed for entertainment. In this we should follow the custom of the British Medical Association, at the meetings of which all the members subscribe to the association dinner; and I should ask for the reappointment of the committee to revise the by-laws and constitution, as there are certain changes which will facilitate the work of our meetings and which should be brought up for discussion at as early a date as possible.

And now, gentlemen, I have done, and there remains but the expression of my thanks for the kind attention you have given to a very matter-of-fact address, but I cannot part with you on this occasion without assuring through you, my brethren in Canada that, although no longer of them, I am still with them in spirit, with them in their persistent efforts to advance the higher interests of our profession, and united with them by a thousand bonds of fellowship and friendship, which absence shall not weaken nor time efface.

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ORIGINAL ARTICLES.

DISINFECTANTS.

PRELIMINARY REPORT OF THE COMMITTEE ON DISINFECTANTS OF THE AMERICAN PUBLIC HEALTH ASSOCIATION.

XX.

ZINC CHLORIDE.

BY GEORGE H. ROHE, M.D.,
PROFESSOR OF HYGIENE IN THE COLLEGE OF PHYSICIANS AND SURGEONS, BALTIMORE.

IN his classical essay on disinfection,[1] Koch expresses astonishment that an agent, which proved almost entirely inefficient as a germicide in his experiments, should have obtained the widespread reputation as a disinfectant which chloride of zinc enjoys. He shows that anthrax spores, exposed to the action of a five per cent. solution (1 : 20) of this salt for thirty days, germinated as freely upon a suitable culture medium as similar material not so exposed. The development of micrococcus prodigiosus was only slightly retarded by exposure for upwards of sixteen hours to a one per cent. (1 : 100) solution. Anthrax spores developed freely in a one-tenth per cent. (1 : 1000) solution of this salt.

Mr. A. W. Blyth[2] says, a one per cent. (1 : 100) solution seemed to stimulate the growth of anthrax spores; five per cent. (1 : 20) failed to destroy their vitality; while twenty-five per cent. (1 : 4) seemed to arrest the life of the spores.

Dr. Sternberg[3] found two per cent. (1 : 50) destructive of the micrococcus of gonorrhœal pus; while one-half per cent. (1 : 200) destroyed the power of development of the septic micrococcus. In Sternberg's later experiments[4] ten per cent. of Squibb's liquor zinci chloridi (said to contain fifty per cent. of anhydrous chloride of zinc) was found effective in destroying the organisms of broken-down beef-tea. Numerous experiments have shown that these organisms are fully as resistent to most germicides as are the spores of B. anthracis. In order to clear up the apparent discrepancy between these observations of Koch and Sternberg, an additional series of experiments has recently been made by the latter, assisted by Dr. A. C. Abbott. These experiments showed that the spores of B. anthracis are not killed by an exposure for two hours to a ten per cent. (1 : 10) solution of this salt. A five per cent. (1 : 20) solution, acting for the same period was, however, effective in destroying the spores of B. subtilis, and upon broken-down beef peptone solution, which had been freely exposed to the air, and consequently contained a variety of microörganisms. A two and a half per cent. solution (1 : 40) failed to sterilize putrid beef-peptone solution.

The above experiments indicate that zinc chloride, in the proportion of five per cent. added to the material to be disinfected, can be relied upon for the destruction of microörganisms in the absence of spores. To destroy the vitality of anthrax spores, however, a twenty per cent. solution is necessary.

[1] Ueber Desinfection: Mittheilungen a. d. Kais. Gesundheitsamte, Bd. I. S. 261.
[2] Medical Times and Gazette, Oct. 11, 1883.
[3] Am. Journ. of the Med. Sciences, April, 1883, p. 331.
[4] THE MEDICAL NEWS, Feb. 7, 1885.

CASE OF STRYCHNINE POISONING TREATED BY THE EXTRACT OF WILD CHERRY BARK, CHLOROFORM INHALATION, ETC.; RECOVERY.

BY GEORGE M. KOBER, M.D.,
A. A. SURGEON, U. S. ARMY.

THE following extract from a letter from Lieut. J. A. Hutton, U. S. Army, dated Berkeley, Cal., January 22, 1885, recalls to my mind a case of strychnine poisoning, which is, perhaps, of sufficient importance for publication:

"If my memory serves me, I once heard you speak of a treatment for poisoning by strychnine by administering extract of wild cherry bark. Can you refer me to the article on the subject, or give me any examples of the use of the extract in such cases?"

The following is my reply:

I have been looking for the article you refer to, but without effect; my impression is, that I received my first suggestion of the use of hydrocyanic acid in strychnine poisoning from the *American Journal of the Medical Sciences*, either in 1870 or 1871, and about three years ago from some Kansas medical journal, which had been sent to me as a specimen number. This must have been in December, 1881, for, on the 21st of December a case of strychnine poisoning occurred in a Chinaman at this place; the symptoms were well pronounced, and after washing out the stomach, I administered a tablespoonful of the extract of wild cherry bark, and repeated the dose in twenty minutes; the tetanic paroxysms diminished in frequency and force, and were readily controlled by the inhalation of chloroform. The alarming symptoms in the case lasted, however, nearly two hours, yet there was evidence of progressive improvement, and the immediate effect of the wild cherry pointed to an antagonistic action. After the expiration of two hours, the only remaining symptoms observed were involuntary twitches and a feeling of stiffness in the muscles, for which potass. bromide and chloral were given with good effect; 15 grains of the former and 10 grains of the latter soon induced rest and sleep for a few hours. The patient recovered perfectly in two days, complaining only of being tired during this time.

My reason for not publishing the case before, was the insufficient evidence of the fact that the extract of wild cherry bark proved absolutely antagonistic to the action of strychnine. You will observe that the stomach had been thoroughly evacuated, the quantity of the poison introduced was unknown, and the effects of chloroform inhalation cannot be overlooked.

I have seen in recent years no authority of weight for the use of hydrocyanic acid in strychnine poisoning, but the subject is sufficiently important to experiment on animals and thus determine whether the extract of wild cherry bark possesses advantages over

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prussic acid, and I hope you have the time and facilities at the University Laboratory to make this subject, as well as the antagonism of strychnine and woorara, tobacco, chloroform, chloral, calabar-bean, potassium bromide, camphor, tannin, morphine, apomorphia, atropia, nitrite of amyl, and carbonic acid, a basis for experimental research and report. The action of apomorphia in strychnine poisoning has been but little studied and may prove of special value. I know of only one instance in which it has been used (*vide American Journal of the Medical Sciences* for April, 1878, page 448).

At all events, such experiments intelligently conducted and honestly reported, will be of great value and are highly appreciated by the profession. Of course, this field has been worked by others, but I doubt whether very many experiments of this nature are repeated sufficiently often by independent observers. I believe we are too apt to accept the conclusions of others as our own. The labors I suggest will either prove or disprove the work of others, and as such, will possess merit and receive due credit.

The above correspondence conveys all I have to say on the case, and is submitted without further comments.

FORT BIDWELL, CAL., Jan. 28, 1885.

MEDICAL PROGRESS.

THERAPEUTICS OF JABORANDI.—M. PETITHAN, in a paper upon the therapeutic uses of jaborandi, claims its efficacy in the treatment of the following diseases:

1. In all catarrhal and rheumatic affections, subacute or chronic, whatever may be their localization.
2. In all dropsical conditions, without alteration in the kidney, when anæmia is not too marked.
3. In certain cases of pernicious intermittent fever in which reaction is hastened without affecting the action of quinine.
4. In malignant febrile exanthemata, especially in scarlatina.
5. In diseases of the skin, characterized by dryness, psoriasis, etc.
6. In chronic syphilitic disease during the employment of mercury and the iodides.
7. In mercurial intoxication.
8. Probably in diphtheria.

The remedy, according to M. Petithan, should be used as follows:

1. It should be administered the patient fasting.
2. The dose should vary according to the case, 60 grains being an average quantity.
3. The temperature of the infusion should vary according to the degree in which the sudorific effect is desired.
4. A local temperature of at least 66° F. should be constantly maintained.
5. The patient should not be permitted to leave his bed on any pretext unless well covered, in order to avoid variation of temperature and syncope, which may result therefrom.
6. Warm drinks should be administered, if the patient is thirsty, a condition very rare owing to the salivation produced by the drug.
7. The employment of a good quality of the drug, that of Coutinho being the best.
8. To have at hand stimulants such as ammonia, etc., to sustain the patient.
9. If necessary to administer an antidote; M. Petithan suggests the employment of belladonna.—*Bulletin Général de Thérapeutique*, July 15, 1885.

STRETCHING OF THE LIGAMENTS OF THE KNEE-JOINT OF A CHILD AS A RESULT OF VERTICAL EXTENSION IN FRACTURE OF THE THIGH.—DR. GEORGE FISCHER, in the *Deutsche Zeitschrift für Chirurgie*, reports a case of stretching of the ligaments of the knee-joint of a child by vertical extension applied in a fracture of the thigh.

The patient, a boy six years of age, was treated for fracture of the thigh by suspension of the limb, and the application of an extension weight of six pounds. Twenty-four hours subsequent angular dislocation of the fracture being observed, an additional weight of five pounds was added to the extension weight, with the result of bringing the fragments into position.

The child remained without pain or fever, and was cheerful. In four weeks the dressing was removed, but the child was unable to stand upon the right leg, and on making the attempt shrieked with pain. Examination showed the fracture to be perfectly united, and also that there was abnormal mobility of the knee-joint. The motion at the joint, both backward and forward, in abnormal extension, was easily made, while, at the same time, the exaggerated motion of the joint was easily heard and felt; and when the foot was raised the leg was placed in such extreme hyperextension that the popliteal space lost its concavity and became convex. Bending the knee produced extreme pain. The circumference of the right knee was two-fifths of an inch greater than that of the left.

The patella was movable, and no effusion was recognizable in the joint. One bandage was applied extending from the foot to the middle of the thigh. In two weeks the child arose from bed and walked about. Two weeks later the bandage was removed and the joint was found entirely normal.

The history of the case shows, beyond doubt, that the abnormal mobility of the joint was due to stretching, not to rupture, of the lateral and cruciform ligaments. The latter condition undoubtedly would have occasioned an extracapsular effusion of blood, or have produced protracted weakness of the joint, since even when the cruciform ligaments alone are concerned, the latter persists through many months, and even years.

TREATMENT OF PHTHISIS.—The unsatisfactory state of the treatment of phthisis and the position of M. Germain Sée as a practical physician may be regarded as sufficient reasons for a reopening of the investigation of terpine as a therapeutical agent. A careful account of M. Sée's study of the subject may be perused in the *Bulletin de l'Académie de Médecine*, No. 30. Terpine is believed to be a powerful agent in modifying the respiratory mucous membrane, and in diminishing morbid secretions. It is said to diminish, and even to cause to disappear altogether, the purulent secretion of catarrhal forms of phthisis. The muco-purulent secretion that proceeds from the bronchial tubes irritated by tubercles and that which comes from the walls of pulmonary cavities are the indications for the use of terpine when-

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ever these secretions are sufficiently abundant to exhaust the patient. Terpine is useful in the hæmoptysis of incipient tuberculosis—that is, before the development of cavities with aneurisms in their walls. In the treatment of catarrhal pneumonia and chronic bronchitis, independent of asthma, that only induce dyspnœa by plugging of bronchi, terpine constitutes the best means of lessening the bronchial hypersecretion. Its prompt action and freedom from disagreeable physiological effects ought to make it a preferable preparation to those containing impure forms of turpentine. On account of its perfect harmlessness and easy digestibility it has advantages over creasote. The best method of administration is in the form of a pill, or as an alcoholic preparation; the most convenient dose is one gramme. In nervous asthma, whether emphysematous or catarrhal, iodine and pyridine are incomparably superior to terpine. Terpine is a derivative of turpentine; it is the binhydrate of turpentine, and may be represented by the following formula: $C_{20}H_{16}(H_2O_2) + 2(H_2O)$. It is formed by the direct union of its component elements when turpentine is allowed to remain in contact with water.—*Lancet*, Sept. 5, 1885.

INFLUENCE OF THE SUN UPON THE GROWTH OF THE SPORES OF BACILLUS ANTHRACIS.—ARLOING, at a recent meeting of the Académie des Sciences, made the following report of his researches upon the influence of the sun upon the vegetability of the spores of the bacillus anthracis. The investigations were conducted as accurately and precisely as possible, and Arloing concludes:

1. If by vegetability is meant the power which the sporiferous mycelium or the free spores possess of producing a new mycelium, it is evident that this is rapidly suppressed by the heat of a July sun in bouillon in which recent cultivations have been made. Exposure for two hours to a temperature ranging from 95° F. to 102.2° F., was sufficient to produce such result.

2. When the influence of the solar heat is exercised less than two hours, vegetability is simply suspended.

3. The effect produced is the result of the solar rays, per se, varying with their intensity, and is the result neither of the calorific rays of the spectrum nor of the luminous rays.—*Gazette Hebdomadaire de Médecine et de Chirurgie.*—August 28, 1885.

A CASE OF CHRONIC PARENCHYMATOUS NEPHRITIS CURED BY THE SUBCUTANEOUS INJECTION OF PILOCARPINE.—DR. J. LAZARUS reports a case of chronic parenchymatous nephritis cured by hypodermatic injections of pilocarpine.

The patient, when first seen by Dr. Lazarus, May 11th, had been ill several months, and his entire body was swollen and shapeless. The legs, belly, and scrotum were enormously distended, and the last was attacked by superficial gangrene. Both buttocks, both thighs, and both legs, as well as both feet, were the seat of pus-discharging ulcers, due to phlegmonous inflammation of the subcutaneous cellular tissue. A bedsore in the sacral region added to the pain and discomfort of the patient. Great difficulty in breathing was also experienced, and profuse diarrhœa was present. The urine was scanty, and had a specific gravity of 1040, and in consequence of the great amount of suspended material, composed of epithelial scales, detritus, etc., was cloudy, and even before the boiling point was reached was converted into a stiff jelly.

On inquiry it was learned that the present condition began entirely unnoticed, and that in February the swelling of his feet led him first to seek professional advice. Continuing his employment until April, he was at last compelled to remain in bed, owing to the increased swelling of his feet and to extreme weakness, and to subject himself to systematic treatment.

Treatment consisted in the employment of hot baths and in the medication generally employed in the treatment of Bright's disease, but no improvement resulted. Dr. Lazarus at once determined to resort to the hypodermatic use of pilocarpin. Previous to the administration of the drug, a small quantity of brandy was given to support the heart, and followed by the injection into the thigh of one-third of a Pravaz's syringeful of the following:

℞.—Pilocarpin. muriat. . . . . gr. iss
Aquæ dest. . . . . f℥iiss.

The patient at once began to perspire abundantly, and for six hours was continuously bathed in perspiration; at the same time abundant salivary discharge was excited, amounting the first day after the injection to fully a quart.

The only unfavorable symptoms noted subsequent to the administration of the drug, were repeated vomiting and difficulty in swallowing. Brandy in quantities of a teaspoonful was administered two or three times hourly, and no symptoms of collapse were manifested. The second day a half syringeful of the same solution was injected, the third day two-thirds, and the fourth day a whole syringeful, and for three weeks subsequently a like quantity was injected into each thigh alternately.

The quantity of urine increased under the treatment from eleven ounces per diem, having a specific gravity of 1040 at the time of the first injection, to more than two quarts, with a specific gravity of 1002 at the twentieth injection. With the twentieth injection the dropsy had entirely disappeared, and the extreme emaciation of the patient became apparent. In the region of both trochanters, on the outer side of each thigh, as well as upon the outer side of the legs, there were large purse-like expansions of the cutis, due to phlegmonous inflammation in the subcutaneous cellular tissue, fluctuating and painful on movement.

Believing that the small quantity of albumen still persisting in the urine, and the feverish condition of the patient, were a result of these purulent collections, Dr. Lazarus opened the pouches at brief intervals, and treated them antiseptically with iodoform gauze and drainage; they rapidly healed, as did also the bedsore and superficial gangrene of the scrotum. At the same time the secretion of urine rapidly increased, so that the quantity passed exceeded the normal, reaching three to four quarts daily. The cicatrization of the last suppurating cavity was followed by the entire disappearance of albumen from the urine. The patient was finally subjected to further treatment by hot baths, and daily increased in strength, his health finally becoming entirely restored.—*Wiener Med. Presse*, August 2, 1885.

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SATURDAY, SEPTEMBER 26, 1885.

CARCINOMA OF THE RECTUM.

IN the *Beilage zum Centralblatt für Chirurgie*, No. 24, 1885, DR. KRASKE, of Freiburg, describes an operation for the removal of carcinoma of the rectum, in which the growth is seated too high to be extirpated by the usual method, and too deep to be reached by laparotomy. The patient having been placed upon the right side, a median incision is carried from the second sacral vertebra to the anus; the left gluteus muscle is severed from its attachment to the sacrum; and, after excision of the coccyx, the tuberoso-sacral and spinoso-sacral ligaments are detached from the sacrum, when, by forcibly retracting the wound to the left, access to the upper portion of the rectum is greatly facilitated. The operation may be rendered still less difficult by severing, with the chisel, a portion of the corresponding lateral mass of the sacrum, the section being made in a concave line, which, beginning at the outer border of the third sacral foramen, curves downwards and inwards, traverses the fourth sacral foramen, and terminates at the cornu of the sacrum. Conducted in this way, the procedure spares the ventral branch of the third sacral nerve, and the sacral canal is not opened.

The operation, thus briefly described, has been performed by Kraske on two patients, both of whom recovered. Of the final results, however, we have no information, as the cases were evidently recorded shortly after recovery. Should the future show that the subjects were permanently relieved, the end surely justifies the means; but unless such a termination be reported, we think that surgeons will be slow to adopt the procedure, especially when they remember that carcinoma of the first portion of the rectum is usually firmly adherent to the sacrum, and that lymphatic involvement is present in not a few cases.

In rectal carcinoma which is beyond the reach of extirpation from the perineum, we take it that the interests of the sufferer will be best promoted by resorting to right or left lumbar colotomy, or establishing an artificial anus in the iliac region. Instead of performing an ordinary lumbar colotomy, the entire calibre of the gut may be divided, its central end attached to the external wound, and the peripheral end returned into the belly, after closure of its lumen. By adopting this suggestion, which originated with Madelung, of Rostock, there will be less disposition to prolapse of the gut, the mechanical, septic, and chemical irritation, to which the carcinoma is subjected by the retention and passage of the feces in the ordinary operation, is removed, and the annoyance, pain, and discomfort which result from the accumulation of feces between the tumor and the external sphincter are prevented.

That these advantages of Madelung's procedure are not imaginary is shown by a case recorded by SONNENBURG, in the *Berliner klinische Wochenschrift*, No. 35, 1885, but in which the operation was performed through the belly. In an example of carcinoma of the upper portion of the rectum, that surgeon attempted to extirpate the disease by a median laparotomy, but the adhesions were so firm and so numerous that removal was impracticable. The central end of the gut was, therefore, attached to the outer wound, and an artificial anus was established, through which the patient had a regular morning evacuation, the bowels remaining quiet during the intervals. There was an occasional discharge of a little mucus from the normal anus; there was entire freedom from pain; and the patient was gaining flesh at the date of the report.

In the same class of cases, Verneuil prefers to make an artificial anus in the iliac region. Instead, however, of practising the ordinary operation of Littre, he fixes the colon in the wound with about fifteen metallic sutures, and resects the anterior three-fourths of its wall, leaving the posterior fourth, with its mesocolic attachment, to form an éperon or spur, which prevents the passage of feces into the inferior portion of the gut. Although this operation, which is described in the *Semaine Médicale*, for April 1, 1885, is intended to meet the same indications as that of Madelung, we regard it as being inferior to the latter.

THE PUERPERAL FEVERS.

THE second volume of *Barnes's Obstetric Medicine and Surgery* has just appeared, and we turn with especial interest to that part devoted to what has been known as puerperal fever, but which recent ob-

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stetric writers have generally called puerperal septicæmia. Here we find nearly one hundred pages given not to puerperal septicæmia, or to puerperal fever, but to "the puerperal fevers." For Dr. Barnes there apparently are four of these fevers, the classification resting, as it seems to us, not so much upon their clinical histories, as upon their asserted etiology. The general statement made by him is, that puerperal fevers are autogenetic, or heterogenetic. The autogenetic fevers are caused by endosepsis, of which there are two varieties, one arising from prolonged labor, nervous and muscular exertion causing a peculiar alteration of the blood, and the other from the non-elimination of effete material thrown into the blood by the involution which follows labor; or the fever may be caused by autosepsis, this term signifying absorption of putrid material which arises from necrosed or decomposed tissues of the mucous membrane of the genital canal, or from decomposing clot or fragment of placenta that has been retained. Hetero-infection is caused by infection or inoculation with some foreign poison: this is exosepsis. "Thus we may understand," says Dr. Barnes, "that there may be a simple endosepsis, that autosepsis is grafted upon endosepsis, and exosepsis is a compound of all three." We do not understand how exosepsis is a compound of all three, that is, of itself, of autosepsis, and endosepsis, especially, when a moment before it was stated that it was caused by "some foreign poison." However, the underlying fact in all is septicæmia.

The author proceeds to state:

"Thus we arrive at the demonstration of the fallacy so often uttered that scarlatina in a puerpera is scarlatina and nothing more. It is something more. It is the foreign zymosis grafted upon the puerperal condition, and modified by it. If the foreign zymosis do not find at the moment of its entry an existing autogenetic fever, this is instantly and necessarily produced." This statement is too absolute, as several published cases of the so-called puerperal scarlatina testify. Indeed, Dr. Barnes himself on a subsequent page contradicts it, saying, "so in some healthy puerperæ the scarlatinal poison runs a simple course, all the special phenomena appearing in due order."

According to Dr. Barnes, endosepsis produces a fever possessing little or no infective property; autosepsis and exosepsis are highly infective. Might not this statement be given another form? Mild cases of puerperal septicæmia are not as contagious as the grave ones. And, further, if autosepsis and exosepsis are highly infective, is it not rational to believe that their essential cause is one? Nay, take all the different varieties of sepsis, those with little, as well as those with great infective power, do they not point to unity of cause?

One thing we are especially glad to see in Dr. Barnes's exposition of the puerperal fevers, is that he denies the existence of simple traumatic fever, which is given such an important place by the German obstetric writers especially, among whom we may mention Kleinwächter.

In the course of the article in relation to etiology, Dr. Barnes says: "Everything is prepared for inflammation. The local injury, the hyperinotic blood charged with effete matter, are there; an exciting cause is alone wanting. A chill is sufficient." But is the chill of puerperal septicæmia cause or consequence? While it occurs in the great majority of cases, most authorities regard it as an indication that infection has already occurred, it is the first manifestation, not the cause of the fever: it is the cry of alarm, the signal of distress.

Several questions are suggested by Dr. Barnes's opinions as to the etiology of the puerperal fevers. For example, if protracted labor produces endosepsis, why do so many primiparæ escape? They have muscular and nervous exhaustion in most cases, yet it is altogether exceptional for them to have septicæmia; a common cause ought to produce its effect in the majority, instead of in a very small minority of cases. Again, may it not be that the necrosed tissue of the genital canal, or the decomposing clot, or placental fragment in the uterus furnishes merely the nidus in which the germ-poisons entering from the exterior are developed? Would it not be quite as rational, instead of having so many varieties of sepsis explaining the mild and grave cases of the disease, to hold that the susceptibility to the poison differs, in different subjects, or that the quantity and quality of the poison vary? No one doubts the unity of the scarlet fever poison, and yet how various its manifestations in different subjects and in different epidemics. In the one case there is variety in the individual constitution, and in the other in that of the poison, though it is continually the same.

It is probable that all varieties of puerperal septicæmia depend upon one cause: this opinion rests in part upon analogy, in part upon the clinical history of the disease, and in part upon experiments made upon animals. That this cause is a *contagium vivum* is also probable from the rapidity of development of the poison—life can only explain such rapid evolution and multiplication. The remarkable results obtained, both in the prophylaxis and in the cure of puerperal septicæmia, by the use of antiseptics—the most efficient germicides being the most useful—tend to confirm this conclusion. Finally, this view is in conformity with much that science has taught us in regard to several other diseases which have been proved to be caused by living germs.

Delore, in his *Traité Pratique de l'Art des Accouchements*, Paris, 1883, remarks that the primary cause of puerperal septicæmia is the introduction of

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bacteria into the organism of the puerpera, and that he himself was the first to place this beyond doubt. He found bacteria in the lochia, in the uterine cavity, and in the peritoneal serosity of women attacked with puerperal fever. He inoculated rabbits with the diseased fluid, and they died of purulent fever.

Rather than accept Dr. Barnes's quadrilateral septicæmia, we would prefer adopting the creed of Siredey: "We do not believe in *autoinfection* of the puerpera. For us all alterations are due to hetero-infection, and the constancy of the uterine lesions, and of their primordial appearance, leads us to regard the genital wound as the exclusive seat of the inoculation."

BACTERIA IN THERAPEUTICS.

PROFESSOR CANTANI, of Naples, has taken advantage of the well-known antagonism of certain forms of bacteria to each other in cultures to make a novel experiment in therapeutics. After satisfying himself of the harmlessness of the bacterium termo when injected beneath the skin, or inhaled, or taken into the stomach of animals, he proceeded in a case of phthisis to attack the bacillus tuberculosis with this common and vigorous microörganism. The case was one with an extensive cavity in the left upper lobe, high fever, and copious expectoration, in which there were elastic fibres and numerous tubercle bacilli. Animals inoculated with the sputum became tuberculous. The case had resisted the ordinary methods of treatment, and was getting steadily worse. On the 4th of May inhalations of a spray of a pure culture of bacterium termo were begun, with the effect of rapidly reducing the amount of expectoration, and diminishing the number of the tubercle bacilli. The fever subsided, and the condition of the patient rapidly improved. On the 1st of June the tubercle bacilli could no longer be found in the expectoration, only the bacterium termo, and inoculation of the sputum in animals failed to produce tuberculosis. It is not to be supposed that the bacteria destroyed the deep-seated tubercle bacilli, but in recent cases of slight extent and superficially situated the method may prove of some service, though the difficulty of carrying out the details is a serious objection to it.

GONORRHŒA A GERM-DISEASE.

THE dependence of gonorrhœa upon specific germs is being more clearly shown, and is receiving more general professional acceptance. MARTINEAU asserts in the *Archives de Tocologie*, for September, that the gonococcus is absolutely characteristic of gonorrhœal inflammations, as all recent investigations demonstrate.

BUMM, of Wurzburg, has recently published a work upon the microörganism of gonorrhœal diseases of mucous membranes, an analysis of which is given in a recent number of the *Centralblatt für Gynäkologie*. He has given much time to the study of the subject, and the results of his observations and experiments are of great interest.

Bumm states that gonorrhœal bacteria, in contradistinction to all other forms, may enter the cell protoplasm, there reproduce, and form a round mass about the nucleus.

In all gonorrhœal inflammations gonococci can be found, provided no disinfectant treatment has been used previous to the examination. Secretions free from gonococci will not produce infection of a mucous membrane, while those containing even a minute number cause gonorrhœal inflammation.

Bumm succeeded in getting a pure culture of gonococci from a gonorrhœal conjunctival secretion, and inoculating the urethral mucous membrane of a woman with this culture caused typical gonorrhœal urethritis. He is disposed to reject most of the culture experiments made by others, but surely those of Paul, referred to by Martineau, and made known to the Société de Thérapeutique last October, were carefully made, and gave similar results to that of Bumm.

Martineau states, in his *Leçons Cliniques sur la Blennorrhagie chez la Femme*, that the micrococcus or gonococcus of gonorrhœa has been constantly found in gonorrhœal pus whether the disease affect the urethra, the vagina, the conjunctiva, the uterus, the vulva, the urethral or the periurethral follicles, or Bartholin's glands. "It is beyond doubt," he asserts, that "gonorrhœa is a venereal affection, virulent and contagious, *sui generis*, having its own individuality, and that it can only be reproduced by an infectious agent always the same."

THE PROFESSION IN CANADA.

FROM the admirable address of Dr. Osler, delivered at the meeting of the Canadian Medical Association at Chatham we gather some interesting details with reference to the state of the profession in the Dominion. In certain directions it appears to have made satisfactory progress, and to have reached a high degree of development.

The question as to who should rule, the profession or the medical schools, seems to have been settled at an early period, though not without a struggle. The Boards elected from the practitioners in each province have now full control over all matters relating to medical education and licensing, and the teaching bodies must conform to their requirements. The system is thoroughly democratic, and seems to meet the serious problem of the profession, viz., the unrestricted competition between the schools. It matters little if the requirements for the degree are easy, so long as those for the license to practise

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are rigid. It is well known in Germany that the Staats-examen for admission to practise is more dreaded by the students than the examination for the Doctor's degree, though it bears the name *tentamen rigorosum*. For the Commonwealth to permit a profession to regulate its own affairs, and to say what the conditions of admission to it shall be, does not seem strange. The lawyers enjoy just such privileges. But we have to deal in this country with a profession jostled by a crowd of irregulars, who claim equal rights, and who have often a controlling influence in the Legislatures, so that the difficulties in the way of uniform legislation are almost insuperable. Dr. Osler does not mention that in the Province of Ontario the homœopaths have a certain number of representatives in the Board, and that homœopathic candidates, though conforming in all respects to the full requirements, are examined in therapeutics and medicine by special examiners We understand, however, that the effect of the strict regulations has been that, on an average, not more than one homœopath has annually presented himself at the Board. In the Province of Quebec, we believe, there is a special Homœopathic Board which, as candidates are so few, is rarely, if ever, called together.

That eleven schools of medicine are more than enough for a country like Canada, with a limited and scattered population, seems very evident, though the ratio to population is not so high as in the United States. The folly of so many schools becomes apparent when the financial basis is exposed. The true note is struck in urging the friends of higher medical education to assist in placing the schools in a position in which they will not be dependent entirely upon the fees of the students. Benefactions are coming at last in the direction of the medical colleges, and the example set by the citizens of Montreal in subscribing for an endowment of McGill Medical Faculty, and the munificent gift of Mr. Vanderbilt to the College of Physicians and Surgeons of New York, will not be without influence in other cities.

AN HISTORICAL INSTANCE OF ALLEGED LATE MENSTRUATION.

PROBABLY there is no more striking illustration of the truth that a man is incapable of judging alleged facts belonging to a department of knowledge which he has never studied, than was given by Gibbon in regard to the death of Asima, the mother of Abdallah. The statement referred to is found in a note to the fifty-sixth chapter of the *Decline and Fall of the Roman Empire*. Abdallah had for months successfully sustained the siege of Mecca, but was finally compelled to yield, the city was taken, and he was slain. The tidings of his death were borne to Asima, and Gibbon states as a "physical effect of her grief for his death, the return at the age of ninety, and fatal consequences of her *menses*." The authority from whom Gibbon seems to have derived this remarkable statement was D'Herbelot; and, upon referring to his great work, *Bibliothèque Orientale*, 1777, we find this author not only asserts the return of menstruation in Asima in consequence of the profound emotion caused by her son's death, but that the flow proved fatal in five days.

Now a knowledge of human physiology would have saved Gibbon from accepting as a fact so marked a violation of physiological law. Such a flow as occurred in Asima's case was in no proper sense to be set down as menstruation—the very fact of its proving fatal would be an obvious objection, apart from any other, to accepting such view.

If so learned a man as Gibbon, one so little disposed to be credulous that he often leaned to incredulity, could repeat that which every intelligent physician would reject, it is not astonishing that the ignorant will accept the most absurd statements in regard to medical matters, and are o frequently made the prey of designing quacks. The narrative too, has a wider application, as indicated at the beginning of the note.

SOCIETY PROCEEDINGS.

MEDICAL SOCIETY OF VIRGINIA.

Sixteenth Annual Session, held at Alleghany Springs, Montgomery Co., Sept. 15, 16, and 17, 1885.

TUESDAY, SEPTEMBER 15TH.—FIRST DAY.

THE meeting was called to order at 8 P. M. by Dr. Bedford Brown, a railroad accident having prevented the President, Dr. S. K. Jackson, from arriving in time.

Dr. H. M. Clarkson, of Haymarket, delivered the annual address to the public and profession, taking for his subject, *Medical Societies: their Relations to the Public.*

DR. ISAAC WHITE, of Alleghany Springs, Resident Physician of the place, read a paper under the title of

MEDICINAL PROPERTIES OF ALLEGHANY SPRINGS WATERS.

The first portion of his paper referred to the geological formation of the framework of the Springs and surrounding country. The immediate vicinity consists (geologically) of magnesium, limestone, and argillaceous slates; while in the near neighborhood ore deposits are to be found—silver, iron, lead, and zinc. The temperature of the Springs stands about 56° Fahr.; the specific gravity at 1002.83; the taste of the water is saline, with an extremely faint but usually perceptible acid reaction. He gave the analysis, and stated that the effects of the baryta and strontia therein contained were in a measure similar to those of arsenic. He made this explanation because it was so common for him to be asked whether the Springs do not contain arsenic as a component part. He believed fully in the great value of Alleghany Springs water, but was by no means one of those enthusiasts who deem the one Springs they have faith in to

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be a "cure all." Such claims being frequently put forth in relation to generally good Springs, often destroy belief that they are of any value whatever, in the minds of intelligent people. His great faith in the value of the water of these Springs was due to years of careful examination and experiment, and he felt that in certain forms of dyspepsia there is no natural water to be compared with it. The practical range of value of the water generally, beyond its special value just mentioned, is both great and extensive, and its uses should be made more widely known. The magnesian salts are undoubtedly a source of great power in these waters. When first drunk, a temporary, strange, giddy feeling in the head often occurs, soon followed by headache. He has seen erythema, eczema, and even boils, follow its use. The dose is a glassful, gradually increased to two teacupfuls before each meal, according as the intention is to get its tonic, diuretic, or cathartic effect.

DR. WM. C. DABNEY, of Charlottesville, as President, read the

REPORT OF THE STATE BOARD OF MEDICAL EXAMINERS,

showing that thirty-two candidates have passed satisfactory examinations since January 1, 1885, and have been licensed to practise in Virginia; six have been rejected. All of the candidates were college graduates.

WEDNESDAY, SEPTEMBER 16TH.—SECOND DAY.

MORNING SESSION.

THE PRESIDENT, DR. S. K. JACKSON, of Norfolk, delivered the

PRESIDENT'S ADDRESS.

He looked upon his elevation to the highest office in the gift of the Virginia profession as an expression of appreciation of his work to interest the Society in zymotic diseases, with special reference to prophylaxis. He first considered the hindrances to a rapid progress of the science of medicine; he then considered the most important factors in its recent high development; and, lastly, the most efficient agencies to invoke in order to secure its continued growth. The address was mostly of State interest.

The subject for general discussion,

SCARLET FEVER,

was opened by a full paper by DR. THOMAS J. MOORE, of Richmond. He adopted the usual divisions, such as scarlatina simplex, scarlatina anginosa, and scarlatina maligna. He gave graphic descriptions of each form, and traced the history of the disease from its earliest mention down to the present day. He discussed the origin of the fever, and laid much stress upon the germ theory. The success in cultivating and inoculating the special microbes of charbon, chicken cholera, murrain, and other diseases in the lower animals, with modification of symptoms and abatement in the severity of the respective diseases were described, and the hope expressed that corresponding advances in human *parasitology* may follow close in their wake. He stated that up to this time the only germ that has filled all the necessary requirements, as found in man through inoculation and otherwise, is the spiro bacterium of relapsing fever found by Obermeier, and called after him. The parallelism between smallpox and charbon was spoken of, travelling, however, in contrary directions; the one from man to the lower animals, the other from the domestic animals to man; the special bacillus of the latter had been discovered; through cultivation and inoculation it fulfilled all that the law required of it. Like vaccination in smallpox, it produced, through inoculation of a remote culture from the virus of one of the lower animals immunity in the human family. The peculiar microbe producing the former has not yet been determined. He hoped that it would come to light at a day not distant. Continuing, he stated there are two microbes described as giving origin to scarlatina, the monas scarlatinosum of Klebs, the plax scindens of Eklund, of Stockholm. Each is ingeniously and plausibly put forward as the true bacillus. Klebs does not indulge in the enthusiasm peculiar to confidence, while Eklund endeavors to demonstate the absolutism of his proposition.

Dr. Moore declared that he did not believe that the special microbe producing this disease had yet been recognized, and the question, to say the least of it, was undetermined and open. The part of the address in regard to treatment was long and exhaustive. He carefully discussed the merits of belladonna, cited the opinions of the homœopaths who had introduced it in this disease, as carrying out the very essence of their doctrine, with that of the regulars who had partially or completely accepted it. Dr. Moore does not think belladonna possesses prophylactic powers, and declared it to be an indifferent drug when used to mitigate symptoms during the progress of the disease. For the reduction of temperature he preferred the ice cap to the head, rubber bag over the front of the neck and covering the great vessels, conjoined with sponging. Failing in this, he uses the wet sheet, then the cold pack, and, as a last resort, the cold bath, as described by Ziemssen. He never fears the depressing effects of cold water, as patients can always be relieved from impending congestion by free resort to alcoholic stimulation. His favorite internal antipyretic up to this time was quinine, administered by rectum or hypodermatically, where the stomach was irritable. He hoped much from resorcin, and urged his brethren to try it, and give their clinical experience to the world; the drug is safe, certain in action, a germ destroyer. As an unguent, especially where itching and burning are prominent symptoms, he knows nothing equal to a combination of glycerine, borax, and carbolic acid, in the proportion of ℥, ʒ, and 15 gtt., respectively; both the borax and acid obtund nervous sensibility. He commended the use of unguents generally; they calm the patient and reduce temperature. He recommended sprays as the most efficacious manner of applying internal medication to the throat, and called especial attention to the value of hydrate of chloral, 2 to 4 grains to the ounce, as invaluable for its antiseptic and anodyne powers. This drug is likewise invaluable, he declared, in convulsions happening in children. It is best administered per rectum. Dr. Moore recommended the use of small doses of mercury for a few days as an adjuvant to diuresis in the dropsy attending acute desquamative nephritis, where diuretics were not accomplishing the desired end. Failing in these, a resort to hydragogue cathartics is indispensable. Jaborandi he had not tried in this fever; he feared its depressing effects; the physiological action of the drug is easy to induce, but diffi-

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cult to leave off when desired. Nutritious food from the commencement of an attack, and free stimulation in all cases where the vital powers are depressed, he regarded as indispensable.

THE AFTERNOON SESSION

was devoted to the

ELECTION OF OFFICERS,

etc., with the following result:

President.—Dr. Rawley W. Martin, of Chatham.

Vice-Presidents.—Drs. John S. Apperson, of Town House; T. B. Greer, of Rocky Mount; and H. M. D. Martin, of Fredericksburg.

Recording Secretary.—Dr. Landon B. Edwards, of Richmond.

Corresponding Secretary.—Dr. John F. Winn, of Richmond.

Treasurer.—Dr. R. T. Styll, of Richmond.

Dr. Hugh T. Nelson to deliver address to public and profession, 1886.

Place of next meeting.—Fredericksburg.

EVENING SESSION.

DR. BEDFORD BROWN, of Alexandria, read a paper on

SCARLET FEVER,

in continuation of the morning's discussion. He has seen malignant cases with cold extremities and tongue, with a body temperature of 107°. He uses

℞.—Acid. salicylat. . . . . ʒij.
Tinct. aconit. radicis . . . gtt. xij.
Infus. digitalis . . . . ℥iss.
Spts. ammon. aromat. . . . ʒiij.
Syrup. aurant. cort. . . . ℥ss.
Aquæ . . . . . ʒj.—M.

S. Teaspoonful for a child five years old every three hours.

This combination reduces fever more decidedly than any other antipyretic he has used; it acts also as a diaphoretic and diuretic. A tepid bath or a wet pack increases its action. Alcoholic stimulants benefit malignant cases tending to collapse and coma, and also cases, on the other hand, having high fever, rapid pulse, and extreme restlessness. Such agents also generally arrest adenitis. In dangerous cases, frequent baths are too exhaustive. When extensive suppuration and pyæmia threaten, muriated tincture of iron, Fowler's solution, and quinia sulphate act well. To arrest acute nephritis and renal dropsy, envelop the body with a flaxseed meal poultice, covered with oil silk. When the kidneys are engorged, the urine bloody, with dropsy of the chest and abdomen, a full dose of calomel, followed by compound powder of jalap will often do good. Such cases bear purgation. But if the renal dropsy is attended with cool skin, great pallor, feeble pulse, and great prostration, then frequent purging is not well borne. In such cases, use lumbar poultices, digitalis, acetate of potash with occasional saline cathartics. A morbid element in scarlatina often develops rheumatism; hence the frequent cardiac complications. When these occur, resort to the active agents named in the above prescription. Alkalies and salines should be used for renal complications. Dr. Brown has been disappointed in the diaphoretic action of pilocarpin. Potassium iodide is often useful in nephritic sequelæ of scarlet fever.

DR. R. I. HICKS, of Casanova, has never seen anything indicating relationship between scarlet fever and diphtheria, nor has he seen scarlatinal sore throat threaten life. Mopping the throat, or gargling hot water will relieve the faucial troubles. He thinks the best treatment of scarlet fever consists in cold sponging the body, and the use of quinine and small doses of carbolate of iodine internally. Everything about the patient should be kept clean, and a current of fresh air should be kept up about the bed. Pull the bed out in the middle of the room—away from the corners—and keep the windows open. When the weather is very cold, use open fireplace rooms. Malignancy depends upon bad sanitation. Zymotic germs do not live in pure air. Filth breeds them. Soda salicylate irritates the stomach too much, and corrosive sublimate, in doses large enough to kill germs, will kill the patient.

DR. ALEX. HARRIS, of Jeffersonton, emphasized the benefit (1) of isolation, both to prevent and to cure scarlet fever; (2) sick-rooms with open fireplaces; (3) the bed should be out from any corner of the room, and draughts of fresh air should be made to keep the room ventilated; (4) the patient's and the bedclothing should be changed daily; (5) the popular disinfectants are not useful in permissible doses. Fire and water above 212° F. are the best germicides. Hence, burn or boil all clothing that has been about the patient; (6) always disinfect a house in which a zymotic disease has been treated, if even a year or two previously. Pour boiling water over the floors, in the cracks, on the wall, etc. Steam would be better.

DR. C. T. LEWIS, of Clifton Forge, believes in the stimulating plan of treatment, and thinks digitalis helps to relieve the swelling of the throat. Sometimes he uses chlorate of potash and muriated tincture of iron. He is a strong advocate of such sanitary measures as Drs. Hicks and Harris have just mentioned. He feeds liberally.

DR. JOHN F. WINN, of Richmond, agreed with the speakers as to their sanitary recommendations. He thinks, in towns especially, placards should be placed on doors of infected houses as warnings to visitors. Public funerals in all cases of death by zymotic disease should be prohibited by law. In the sick-room, use old cloths, etc., which may be burned up. The popular "disinfectant solution" of copperas is not a disinfectant, but is antiseptic. Four ounces of chloride of lime dissolved in a gallon of water is a good preparation to pour over the evacuations of typhoid patients. Corrosive sublimate in solution is also used. Let all articles that are to be used again be kept immersed in one or the other of these solutions for several hours. To disinfect a room, burn in it from two to four pounds of sulphur, and keep doors closed. If the body after death is to be removed, it should be kept wrapped in cloths wet with Labarraque's solution—℥iv to the gallon.

DR. L. LANKFORD, of Bowers, Va., agreed with the speakers as to the importance of fresh air in the treatment of scarlet fever, and thinks that malignancy would be rare if this were insisted on more than it is. As an illustration, he mentioned the cases of two of his children. The younger was kept downstairs in a warm

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room with the doors closed, and malignancy developed; the other child was kept upstairs, where there was no fire and where a window was kept open, and no malignant sign or symptom developed. The weather was cold.

DR. J. HERBERT CLAIBORNE, of Petersburg, spoke of a case in his practice in which the dermic inflammation was so intense that, on the third day, the skin came off in large patches all over the body. Some children played day after day in the room with the patient, and yet none of them contracted the disease. Shortly afterward some other children had the fever so mildly that they could not be retained in the house; but in a short while, the disease developed in some of their playmates. An old lady living in the house with these mild cases had scarlet fever so severely that she came near dying. To disinfect a sick-room, not only the organic germs must be destroyed, but the spores also. A solution of corrosive sublimate (1:1000) is required to kill the spores, or water at 280°. But the best disinfectant for a sick-room after all is pure, fresh air. The doors and windows should be left open. Of course, always disinfect articles of clothing, etc. He thinks Squibb's solution of chlorinated soda—℥ij to the gallon of water—is the most efficient insecticide in the market, and it is cheap enough to be within reach of all.

DR. WM. L. ROBINSON, of Danville, believes a great deal of good results from proper medicinal treatment. He brings down the fever by using a full bath at 95°, which he allows to cool down to 85° while the patient is in it. Before taking him out of the bath, give a weak toddy and rub the body over with camphorated oil before he is put to bed. He depends very much upon the free use of lithia water as a drink. If the nose gets stopped up, so as to compel mouth bleeding, the child often wakes up from cat naps screaming. For this condition he uses a solution of two grains of chloral hydrate in an ounce of water with the steam atomizer. This keeps the nose moist. Large doses of calomel and jalap should be used if kidney complications threaten. In one case of œdema of the lungs, the hypodermatic use of pilocarpin cured the patient.

DR. W. W. PARKER, of Richmond, has often been disheartened at the results of treatment. Many cases get well without any special treatment, but until recently he did not get good results under any plan. Now, however, he has better results. The best remedy for malignant scarlet fever is alcohol in free doses. He keeps his patients hot. He got the suggestion from the good effects of alcohol in typhoid fever. Applications of turpentine are as good for the sore throat as carbolic acid. Keep the child in the house; in summer, about ten days; in winter, wait about three or four weeks.

DR. M. A. WILSON, of New River Depot, has used, with great satisfaction, Bartholow's tincture of belladonna prescription to antagonize that condition of the throat which causes exudation.

DR. HUGH T. NELSON, of Charlottesville, said patients often succumb to accumulations of heat around the nerve centres; hence the necessity for diaphoretics and heart stimulants. After these, use tonics.

Dr. S. K. Jackson, of Norfolk; Dr. Robert S. Lewis, of Culpepper; Dr. Wm. L. Broaddus, of Newtown; Dr. John Grammer, of Halifax Court House; and Dr. W. D. Cooper, of Morrisville, all spoke in the highest terms of praise of Watson's chlorine treatment, as described in his work on *Practice of Physic*.

DR. M. G. ELLZEY, of Washington, D. C., then presented his report on

CHEMISTRY, MATERIA MEDICA, AND THERAPEUTICS.

In reference to the advances made during the past year in materia medica and therapeutics, he thought all interest centred around antipyrin and cocaine—the two drugs most frequently mentioned by professional writers in the last twelve months. He thought the former had not realized the great hope induced at its introduction, namely, that we had a safe and reliable antipyretic. It had not only in frequent instances reduced the temperature of the sick body without changing in any manner the force of the fever illness, but its administration had at times been attended with alarming results to the patient. Its value had proved by no means as great as was at first announced, and its true place in our armamentarium can hardly yet be assigned. Cocaine has proved of wonderful power in some directions, but is not the general mucous anæsthetic that is claimed for it by a few enthusiasts. Dr. Ellzey is fully of the opinion that protective inoculation by attenuated choleraic virus is by no means operative. He shares the general opinion that the subject is one hardly worthy of discussion. He thinks Dr. Sternberg's researches are of more than ordinary value to the profession, and advised all physicians interested in the "germ theory" to follow up his studies. He advised more thorough study of the climatological peculiarities of Appalachian Virginia by the practitioners of the State. He thought that region a vast summer sanitarium.

DR. SMELT W. DICKINSON, of Marion, read the

REPORT ON ADVANCES IN OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

Antiseptic midwifery, he said, has undoubtedly saved many lives. But some of the antiseptic practices of a year ago have been done away with as being either useless or harmful—such, for instance, as routine vaginal and intrauterine injections after labor. Mercuric bichloride is dangerous in such injections; especially is it to be omitted when there is nephritis. Lying-in rooms should be aseptic, and whatever is to go into the vagina—such as hands, sponges, instruments—should be made scrupulously clean. Among other prophylactic methods, Cushing's was described. Thoroughly bathe the parts and then douche the vagina before delivery with weak solutions of corrosive sublimate, and after delivery of the placenta, wash out the uterus with a like solution. The doctor's and the nurse's hands should be kept aseptic all the time.

Post-partum drainage is readily effected by letting the patient sit upon the night-vessel when she wishes to urinate, etc., provided, of course, her condition otherwise permits it.

The contagium of puerperal fever must be of a material character, capable of being either destroyed or washed away by antiseptic injections. If body temperature rises materially above 100° after labor, with no other cause, and the discharges become offensive, use antiseptic washes at once. A doctor may return to his general practice after he has thoroughly used antiseptic washes and other precautions.

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Extrauterine pregnancy is now treated by killing the fœtus by electricity and then by laparotomy.

Combined version in placenta prævia is done thus: Tampon the vagina until made sufficiently dilatable. Then anæsthetize the patient and remove the tampon. Introduce the hand and carry two fingers through the presenting placenta, and draw the fœtus to one side, while the other hand on the abdomen presses so as to carry the buttocks down until a foot can be reached. Draw the foot through the cervix so that the breech may act as a tampon on the lower segment of the uterus. Then wait for the spontaneous expulsion of the child, or for sufficient dilatability of the cervix to permit delivery.

Dr. Christopher Tompkins, of Richmond, in the treatment of the cord, recommends that it be drawn between the fingers until some of the gelatinous matter is expressed, and then tie as usual, except to apply a third ligature near the one left on the umbilical end of the cord. Credé and Weber prefer absorbent cotton as a dressing for the cord, to prevent umbilical inflammation.

Abortion is approved when dangerous conditions call for it. The lying-in room should have a regulated temperature. Swinging as a substitute for artificial respiration is urged by some.

Of diseases of women, neurasthenia is the most prominent. Nervous disease is often mistaken for uterine disease. According to Mitchell, neurasthenia is generally associated with anæmia, and is chiefly reflex in its manifestations. Rest, massage, electricity, and forced feeding are the essentials of treatment.

Lacerations of the cervix uteri will usually heal of themselves if blood poisoning is prevented. If operation should be required, relieve the cellulitis first.

Alexander's operation for backward uterine displacements consists in cutting down to the external inguinal ring, gathering up the ends of the round ligaments, and drawing them sufficiently out to replace the womb to its proper position. Then stitch the ligaments to the edge of the ring and cut off about an inch of the end. Drawing too much on the ligament has caused death. Wear a suitable pessary for two months. Prolapse of both ovaries into Douglas's cul-de-sac, with consequent sterility, may be cured by this operation.

Dr. Goodell advises rapid dilatation of the cervix for dysmenorrhœa instead of incision, especially for organic dysmenorrhœa, and also for nervous dysmenorrhœa.

In diseases of children, the use of large doses of carbonate of ammonia for scarlet fever is gaining favor. Dr. R. D. Huffard, of Smythe Co., uses the carbonate later in the disease, when the capillary circulation is languid. Bismuth subnitrate is good for the sore tongue, which usually occurs about the fifth day, as it is, also, in cancrum oris. Trypsin is a solvent for diphtheritic membrane when used as a spray every fifteen minutes or so, if the patient's strength will allow. Avoid chlorate of potash in febrile affections where the blood is alkaline, as in diphtheria, nephritic diseases with scanty urine, uræmia, etc. Icterus neonatorum is said to be due to incomplete closure of the ductus venosus. Dr. Hartigan, of Washington, D. C., supports Sims's theory as to the cause of trismus nascentium being "an inward displacement of the occipital bone."

(To be concluded.)

AMERICAN GYNECOLOGICAL SOCIETY.

Tenth Annual Meeting held at Washington, September 22, 23, and 24, 1885.

(Specially reported for THE MEDICAL NEWS.)

TUESDAY, SEPTEMBER 22D.—FIRST DAY.
MORNING SESSION.

THE Society was called to order at 10 o'clock, in the Lecture Room of the Columbian University by the PRESIDENT, WILLIAM T. HOWARD, M.D., of Baltimore.

DR. SAMUEL C. BUSEY, of Washington, delivered the following

ADDRESS OF WELCOME.

Mr. President and Fellows: I offer you the greetings of fellowship and bid you welcome guests of the Washington Obstetrical and Gynecological Society. The acceptance of the invitation to hold your tenth annual meeting in this city, and your presence here to-day, confer a distinguished honor upon our young society, now just completing its third year of existence, and affords an opportunity for its members to meet and make the acquaintance of men who by their brilliant achievements in the sciences of obstetrics and gynecology have won world-wide reputations, and added lustre and renown to American medicine.

We extend to you the hospitalities of fraternity, and, by our presence at this opening session, attest our professional regard and obedience to parental precept and authority.

It is a special gratification to know that the youngest of your natural offspring will enjoy the honor of commemorative union on this tenth anniversary of a society which, in the past decade, has contributed so much to the advancement of obstetrics and gynecology, and to the cure and alleviation of the afflictions of women.

On the roster of Fellowship the names of Atlee, Buckingham, Peaslee, Sims, Trask, White, and Wallace are marked with the asterisk of death. Others have come to fill the places of the lamented dead, and the future gives promise of even greater progress and higher excellence in the aims of conscientious and scientific medicine.

Then, here, at the Nation's capital, on this auspicious occasion, in the unity of a common purpose, let us join with you in that faith and devotion to duty which have been crowned with such marvellous success and rich rewards. You must lead; we will follow. And, when you have completed the labors of the present meeting, and the new and renewed friendships shall be interrupted by your return to the scenes of your daily work, if our gratitude as pupils shall be the measure of your pleasure as instructors, your second advent will not await the expiration of another decade.

DR. BUSEY then read a paper on

THE NATURAL HYGIENE OF CHILDBEARING LIFE.

Precocious nubility is the congener of precocious puberty. The latter is popularized as the sign of the former as the complement of maturity, whereas, in fact, one is the symptom and the other supplies proof of immaturity. Conjointly they represent the premature evolution of a function in an organism unfitted for its fruition. It is a law of the animal kingdom that pre-

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mature reproduction arrests the growth of the body and diminishes functional energy; so, likewise, in the vegetable kingdom, premature fruiting injures development and impairs future productiveness. It is not, however, necessary to appeal to analogies found among the lower order of animals and in vegetable life for proof of the detrimental effects of the too early use of the faculty of productivity. Nor does its premature establishment necessarily imply that precocious matrimony will determine its maturity. Puberty must precede and marriage should succeed nubility. The order of succession is fixed, but wedlock should conform to the law which prescribes the period of greatest fecundity with the least mortality and greatest survival of children as the fitting time.

Precocious matrimony is, then, the sequel of precocious puberty, and, if it entails harm, the root of the evil must find its radical in too early puberty. In this country, and in the higher walks of life, the ratio of precocious puberty is manifestly on the increase. Whether equally so among the middle and lower classes is not known. If there is a like increasing ratio among the same class in other countries, the cause or causes might be more easily ascertained. But in some countries the hindrance of an advanced age of majority and the requirement of parental assent restrain precocious matrimony; consequently the evil tendencies and effects of such increasing ratio are less prevalently diffused.

The complex phenomena of precocity refer to erethism of those nerve-centres which preside over the brain and reproductive faculties. The predominance acquired by these vital activities subordinates those of the ganglionic system, and impairs nutrition. Overuse and disuse of faculty and organ, if not equally potent, are commensurate causes of disturbance. Exaltation of the cerebral and generative capacities involve corresponding deterioration of formative energy. This sovereignty of special attributes is more often traceable to external and extraneous stimuli than to heredity and defect of organization. Heredity is undoubtedly a prevalent factor. As runs the legend, one generation accumulates a fortune, the second divides, and the third squanders it. So one generation inaugurates the artificial methods of premature culture, the second intensifies the refinement of intellectual possibilities and emotional display, and the third explodes in caricature extravagances. The young, highly organized, and vascular brain-structure is stimulated by over- and too constant work. Repose and rest are sacrificed to baneful amusement and harmful entertainment. Early to bed and early to rise is the law of natural life, now becoming obsolete. One or more of the special senses are strained to the utmost attainment of mature development. The emotional excesses are displayed as esthetic accomplishments. The passions and impulses are cultivated by indulgences. The whims and caprices are gratified either by acquiescence or evasive suggestion of reprehensible expedients. The body, stilted on elevated heels, is geared from foot to crown into unnatural posture and ungainly carriage. Vital capacity is limited to the expansion of closely fitting corsets, and the figure is made to conform to the style of fashionable dressing. All these and many other practices are diligently taught to crown the adoration of parents.

DR. CHADWICK, of Boston, said that he had made a few investigations in regard to the early appearance of menstruation with reference to women of various nationalities in this country. In the examination of over 4000 cases it was found that American women menstruated earlier than women of other nationalities examined. Furthermore, American women of American parentage begin to menstruate earlier than American women of foreign parentage. Scarcely enough observations, in reference to the menopause, have been made to justify absolute conclusions, but he found to his surprise that the period of the menopause is appearing later in American women than in the foreign-born women in this country. If this is corroborated, the conclusion would be that the childbearing period is greater in American women than in women of other countries. The fact that the childbearing period is increased both at the beginning and the end, we should take as an indication of added vigor. There is no question of the fact that the number of children to a family is diminishing, but this can be accounted for by social influences, and is common to all civilized communities.

DR. JOHN P. REYNOLDS, of Boston, agreed entirely with this statement, and he believed that in the community in which he lives the women of the upper and middle classes menstruate earlier than they did twenty-five years ago. He believed that this indicates an activity of function which will prolong it beyond the average period of gestation.

A point of interest is in reference to the diminution of sexual power. He questioned whether this is not more dependent on individuality than on sex. He thought it doubtful that women pass the period for the relation of marriage and of childbearing sooner than men pass the period of procreation. This is, however, a most perplexing and obscure question.

DR. HENRY J. GARRIGUES, of New York, then read a paper on

PUERPERAL DIPHTHERIA.

This is a disease not referred to in the majority of text-books. It is one of the forms of puerperal fever, or rather one of the different diseases included under that term. It is distinguished by the appearance of diphtheritic exudation somewhere in the genital tract of the puerperal woman. It is accompanied by well-marked general symptoms, imperils life, and calls for active treatment. The paper was based upon 27 cases treated in hospital practice, and two cases occurring in private practice.

The characteristic feature of the disease is the diphtheritic infiltration, which is usually of light pearl-gray color. Generally appearing in small spots and coalescing or extending by involving new areas, the exudation is firmly adherent to and embedded in the underlying tissue. It is most marked at the points where the canal becomes narrow. This may be explained by the more frequent occurrence of lacerations at this point. The posterior wall of the vagina is more commonly attacked than the anterior wall, which is probably due to the fact that it is bathed with the discharges from the uterus. The exudation may, however, appear on entirely healthy portions of mucous membrane, which have not been the seat of laceration. The surrounding parts are more or less swollen. The connective tissue of the pelvis is infiltrated with serous fluid and is sometimes the seat of ecchymoses. The skin is sometimes the seat of

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a dusky erythema, consisting of minute spots, disappearing on pressure and not elevated. In one case petechiæ as large as hemp-seed existed. These were not affected by pressure. The same patient later developed erysipelas.

In five cases ending fatally, autopsies were made. The uterus was much enlarged, sometimes reaching almost to the umbilicus two weeks after labor.

The cervix may be torn, showing diphtheritic patches or a thin gray film. In two cases, large portions of the cervix sloughed and the vagina became gangrenous. The tissue of the uterus is friable and may be almost diffluent. The diphtheritic exudation may affect the Fallopian tubes. In some cases the muscular tissue of the uterus is scooped out as in dissecting typhus, of which he had described several cases. This occurred in four of the cases of puerperal diphtheria. In one case the mass thrown off was four inches long, two inches wide, and one inch thick. These masses have a pear-shape, their outer surface is of a gray color, the inner surface flesh color. They are perforated with a number of holes leading into uterine sinuses. Under the microscope these masses are shown to consist of smooth muscular fibre in a more or less advanced state of fatty degeneration. The connective tissue is increased. Lesions are also found in other organs and occasionally in the joints.

Difficult labors and a previous weakened condition of the patient predispose to the development of the condition. The real cause of the disease is, however, an infection from the outside. Dr. Garrigues had never been able to convince himself that the poison passes from one patient to another, but it seems to be in the air of the ward. When a ward had been fumigated with sulphurous acid there would not be a seriously sick patient for weeks. That the poison comes from the outside is also shown by the fact, that when the prophylactic treatment to which he would refer is employed, the disease does not develop.

The first symptom which shows a deviation from a normal course is usually the occurrence of fever, which mostly appears from two to four days after delivery. Sometimes there will be a chill or chilly feelings. The temperature rises gradually as a rule. It has ranged from 100.6° to 107°, the average being from 102° to 104°. Anorexia, vomiting, coated tongue, and diarrhœa indicate disturbance of the gastro-intestinal canal. The patient complains of pain in the epigastrium and one or both groins, sometimes extending into the legs. Examination shows the uterus larger than it should be and quite tender. Tenderness is often also found in the groins and some swelling may also be observed. The lochial discharge is often scanty and offensive, but in some cases it has been normal. In those cases in which there was expulsion of the tissues of the uterus, there has been a purulent discharge until expulsion has been accomplished. The diphtheritic patch commonly appears from three to seven days after delivery. It continues to spread for several days, and usually stops in from three to eight days after the beginning of treatment. In one case the diphtheritic patches also appeared on the tongue, indicating that the disease is identical with the ordinary form of diphtheria attacking the throat. The irritation of the nervous system is evidenced by headache, stupor, and delirium. There is alteration of the renal secretion, and sometimes there is painful micturition. Three patients had albuminuria. In two cases jaundice bore testimony to the perverted condition of the blood. The sweet breath and profuse sweats of septicæmia were observed twice. One patient developed painful arthritis of the elbow-joint. When once the diphtheritic process is arrested, the patients recover rapidly.

There is scarcely any difficulty in the diagnosis. When the injections of bichloride of mercury are employed, they cause a yellow discoloration of abraded surfaces. This is strictly limited to the abraded surface, and is unaccompanied with general symptoms. When the chloride of zinc is applied to the affected surface in the treatment of the disease, a slough is caused having the color of the deposit, and the physician is sometimes at a loss to determine whether or not the disease is spreading. The point is decided by noting where the application is made and by observing the edge of the deposit. The diphtheritic deposit has a scalloped outline, while the outline of the slough is smooth.

As to prognosis, five out of twenty-nine cases died, giving a mortality of 17.2 per cent. Another of the cases might have survived, for she lived thirty-two days and died from rupture of the uterus while an assistant was using an intrauterine injection. The post-mortem showed the walls of the uterus to be extremely thin. The duration of the cases ending in recovery is usually about two weeks. In those cases in which a portion of the uterus is scooped out, the organ is left in a weakened condition, which in future pregnancies may predispose to rupture of the uterus.

In the way of prophylaxis, it is recommended to limit the vaginal examinations during labor as much as possible. The finger or hand should not be introduced into the uterus unless absolutely necessary. The delivery should be so accomplished as to avoid as much as possible wounding of the genital canal. Instruments should be used with care. The most important element in the prophylaxis is the use of bichloride of mercury as an antiseptic. Everything coming in contact with the patient should be washed in the solution of corrosive sublimate, 1 : 2000. After this treatment was introduced only one case appeared in six months, and that was due to carelessness on the part of an attendant, who delivered the woman immediately after removing a macerated fœtus from another patient.

After the disease appears the treatment must be energetic. The only treatment that has given me satisfaction is that with chloride of zinc. The affected parts are touched with a solution consisting of equal parts of chloride of zinc and distilled water. This is rather painful and an anæsthetic may be used. A warm solution of corrosive sublimate, one to two thousand, is used for intrauterine injection where this is required, and subsequently a suppository of fifteen grains of iodoform is introduced. If this is done, the process need not be repeated more than once in the twenty-four hours. The vagina is to be touched every three hours. The parts should be examined every day, and if the process is not arrested, the chloride of zinc is to be repeated. If the disease is limited to the vagina and vulva, the intrauterine treatment is omitted. Extract of ergot is also given with the hope of causing contraction of the uterus. Morphia, quinia, and digitalis are used as indicated.

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High temperature is combated with sponge bathing, salicylic acid, and, if necessary, the rubber coil and ice-water. Carbolic acid is also given, sometimes combined with the compound tincture of iodine. If the temperature is not very high, warm poultices are preferred to the ice-bag and coil. Where there is diarrhœa, warm poultices are also considered preferable.

Samples of the occlusion bandage to be used after labor were exhibited. They consisted of a pad of absorbent cotton wet with corrosive sublimate solution, over this a piece of oiled muslin or rubber cloth, and over all another piece of absorbent cotton and a piece of muslin or flannel, to attach it to the binder.

DR. W. T. LUSK, of New York, said that ten years ago he had one hundred and fifty cases of this affection under his care. Of this number twenty-eight died. The epidemic could be traced to a patient brought into the hospital after a long labor. She was suffering at the time from syphilitic ulcers of the vulva, which was excessively inflamed. He extracted the child with forceps and the inflamed perineum tore. Soon after this the diphtheritic deposit appeared, and the whole ward was infected. . The first cases were the result of transference from the patient, for the question of contagion was not recognized as it is now. After a time, great care was taken to avoid every possible source of contact, but the disease continued and could only be explained on the supposition that the air of the ward was filled with germs. In his first cases, the treatment consisted in the application of equal parts of the solution of the persulphate of iron and compound tincture of iodine. The disease usually began with a certain degree of mildness and gradually became more severe. Of the first twelve cases only two died, while in the second set of twelve cases only two recovered. In the progress of the epidemic, the entire system seemed to be affected, even before the advent of labor. Since the adoption of Dr. Garrigue's suggestion, with reference to the use of corrosive sublimate injections, he had not seen a case of puerperal diphtheria in the course of three and a half years. He had neither had a death from fever, nor any cases of fever, the old-fashioned milk fevers even being absent.

DR. H. P. C. WILSON, of Baltimore, had always been averse to using bandages of any kind after delivery, preferring to have the napkins placed under the patient so as not to obstruct the free flow of the discharge, and to use frequent washings of the vagina with antiseptic solutions.

DR. WM. L. RICHARDSON, of Boston, said that during 1882 and 1883, he spent most of his time in fighting this puerperal fever with ill-success, until the appearance of Dr. Garrigues's paper. After adopting the use of the pad and the corrosive sublimate solution for the hands of the attendants and nurses, the hospital has been almost entirely free from the disease. There has been no death since these measures were adopted, and there have been only one or two cases which caused anxiety. He agreed entirely with what the reader of the paper had said. In regard to the use of the corrosive sublimate injections he has found that even so weak a solution as one to five thousand will sometimes cause salivation. Where he meets with this, he uses iodoform, as has been suggested.

DR. JOHN BYRNE, of Brooklyn, inquired of Dr. Garrigues whether he had noticed any vaginal deformity following this affection? He had seen one case in which such deformity occurred. A lady, after her fifth confinement, was taken with tenderness, fever, and so on, and on the fourteenth day had a copious hemorrhage. On examination he found the entire posterior and outer surface of the vagina almost completely detached. Acetic acid was applied, and the bleeding checked. An examination after the healing of the parts had taken place showed the vagina much shortened and narrowed in its upper part, the cervix being obliterated. The anterior portion of the cervix was in contact with the recto-vaginal septum. He told the patient, in reply to her inquiry, that it was not likely that she would conceive. His prediction turned out to be false. In the following confinement she was in labor twenty-four hours before there was the slightest appearance of an opening through which a fœtus could escape. There was bulging of the presenting portion of the uterus, and into this he made an incision, and the child was delivered readily, the patient making a rapid recovery.

DR. GARRIGUES thought that the endorsement of Drs. Lusk and Richardson would be sufficient to induce others to try the occlusion pads. During the year preceding the introduction of the new method of treatment the mortality was nearly seven per cent. During the next, with the new method of treatment, the mortality was one and a half per cent. During the second year it was less than three-fourths of one per cent. In the institution in which these observations were made there are a number of disturbing elements, one of the most important being its connection with a large general hospital. In this new method of treatment the antiseptics are applied only to the outside in normal cases. Only in abnormal cases are vaginal and intra-uterine injections employed. In reply to the objection of Dr. Wilson, he would say that the pads used are absorbent. In hospital practice the pad is changed every four hours; in private practice, three times a day is sufficient. He has never had salivation from the use of corrosive chloride. The nearest he has come to it has been fetid breath and diarrhœa. He has only seen two of the cases subsequently to recovery when in labor. In one there were great shortening and narrowing, but during pregnancy there was softening, and the labor was quite easy. The second patient is pregnant, and the vagina appears to be in good condition. In reply to a question, he stated that the use of pads prevents all offensive odor.

DR. H. P. C. WILSON asked Dr. Garrigues this question: Suppose a case of lacerated perineum, not sufficient to need sutures, in which serre-fines were used, would not the use of the pads interfere with the use of the serre-fines?

DR. GARRIGUES, in reply, said he thought not; the pads could be so adjusted as not to interfere. But in any event, if it did, he would dispense with the serre-fines and use the sutures, in preference to dispensing with the pads.

AFTERNOON SESSION.

DR. JOSEPH TABER JOHNSON, of Washington, reported

FOUR CASES OF OÖPHORECTOMY, WITH REMARKS.

Case I.—Miss M., had suffered severely from chronic oöphoritis and menstrual epilepsy. She was at this

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time 29 years of age, and had suffered for fourteen years. There was constant pain in both ovaries, but most of the suffering was on the left side. For two weeks in every month she was under the care of an attendant, her education had been neglected, and she was in an almost inhuman condition. She had been under the care of skilful physicians, and almost everything had been tried. Oöphorectomy was, therefore, decided upon, and performed August 17, 1882. Both ovaries and one Fallopian tube were removed. For several months she had no periods and no spasms. Gradually her menses returned, and with them the convulsions in milder form. She is now menstruating with more regularity than before the operation.

Case II.—Miss W., aged 21, from being in affluence had been reduced to the necessity of earning her own living. Five years before coming under observation she took a severe cold at the monthly period. Since then she has suffered from chronic ovaritis. She also had leucorrhœa and a displaced uterus, for which she was treated without material benefit. He treated her for three months without benefit, and then removed the ovaries. She made a rapid recovery, and has since been free from pain.

Case III.—Miss S., aged 24, had been a great sufferer from dysmenorrhœa and reflex symptoms. She suffered with burning pain in the abdomen and head for ten days preceding menstruation. For several months there had been no flow, but the distressing symptoms continued. Both ovaries and tubes were removed. She made a rapid recovery, and continues healthy.

Case IV.—Mrs. —, aged 40, the mother of three children, had suffered with pain in the left ovary for twenty years. She had a lacerated cervix and perineum, which had been restored without improving the other symptoms. She had been under treatment for ten years, but was practically bedridden for three weeks out of every month. She wished to have the ovaries removed, but he advised her to wait five years longer, until the menopause would accomplish the same result. She, however, insisted on the operation, and he performed it last February. She did well for three days, when vomiting set in, and she died exhausted on the sixth day.

He then referred to the great importance of an early diagnosis in such cases in order that the operation might be performed before numerous adhesions had taken place and before the general condition had become so depressed, referring to the statistics of various operations in confirmation of his statements. He thought that many cases which are now lost from prolonged operations necessitated on account of the numerous adhesions, might be saved if there were means by which an early diagnosis could be made.

DR. R. S. SUTTON, of Pittsburg, said that we all admit that a woman with a cystic tumor of the ovary is doomed to death if the tumor is not removed; but when she is suffering from some disease of the ovary which does not give tangible evidence of its presence, the surgeon has often difficulty in deciding the question of operation. It may be that under ether and with bimanual palpation it is utterly impossible to detect any evidence of disease of the ovaries or tubes and yet the ovaries may be at the bottom of the trouble. Is the woman to be allowed to go on suffering because we cannot obtain evidence of disease that will justify an operation? It is better to give the woman the benefit of the doubt and open the abdomen and examine the organs. He did not believe that any one can tell the exact condition of the ovaries before opening the abdomen. It has now come to be the practice in obscure conditions in women for which no explanation can be found and in which it is probable that the ovaries or tubes are at fault, to make an exploratory operation. As a rule, exploratory operations are safe. He has yet to open the first abdomen and fail to find disease of the ovaries or tubes.

He removed both ovaries from a woman sent to him for operation for a lacerated cervix. There were symptoms which he could not refer to the condition of the cervix. On careful examination he found evidence of disease of the ovaries. He removed both ovaries. One contained a dermoid cyst, and the other had undergone cystic degeneration.

DR. W. H. BAKER, of Boston, said that this operation opens up a large field of usefulness to the gynecologist and of benefit to woman, but there is great danger of the pendulum swinging too far, and the operation be performed too frequently. He would not discourage the operation in properly selected cases. An operation which gives such brilliant results in properly selected cases is almost certain to be carried too far. The greater skill is shown in curing these patients without the removal of organs. We shall come to a better understanding as to when the operation should be performed, and when not, by studying the organ itself very carefully in those cases in which it has been removed. In all descriptions of the operation there should be an accompanying report of the microscopical examination.

The question of early diagnosis has been referred to, and this is a matter of the greatest importance. The ovaries and tubes are not the easiest organs to examine. Even where the ovaries are adherent to surrounding tissues, it is often extremely difficult to ascertain this fact, and exploratory operation may be the only way to determine the condition. Where exploratory incision has been made, and the organs found healthy so far as their gross appearance is concerned, he said that they should be put back and the abdomen closed, even if the woman suffers excruciating pain with the menstruation. He believed, if the same perseverance and good judgment were manifested in these cases as in others, we should be able to cure many of them without operation.

He could not agree with the author of the paper in regard to the increased danger from the presence of adhesions. The only death that he has had was in a case where there were no adhesions and the operation was performed with ease. In many of the other cases there have been extensive adhesions.

DR. THOMAS ADDIS EMMET, of New York, remarked that what he had to say was rather in the form of a protest. He is not an advocate of the operation and he thinks that more harm than good has been done by its performance. There are cases where the operation must be done. Where there is salpingitis with the tubes filled with pus the operation is certainly indicated. That the operation should be done, as it frequently is, for the relief of so many symptoms is, he thinks, a reproach on the profession. He can not advocate the opening

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of the abdomen for the purpose of making a diagnosis. If the diagnosis can not be made before hand, he does not think it justifiable to run the risk of opening the abdomen.

For three years he has been looking for cases in which he considered the operation indicated, and he has seen but two such cases. One was a typical case in which there had been several attacks of peritonitis, following gonorrhœa. He found both tubes as large as his wrist and presenting the twisted appearance described by Tait. The history indicated the existence of pus. He urged an operation, but the patient refused. She was seen by Dr. Thomas who also recommended operation. She insisted upon staying in Dr. Emmet's private hospital. For five months there was no improvement. The treatment consisted of hot water injections, keeping the bowels regular, applications of iodine daily, and attention to the general health. After several months, the tubes began to diminish in size, and in the course of a year the accumulation entirely disappeared and she left the hospital apparently a well woman.

The second case was similar; she also refused an operation. She is now no worse, and in some respects better than she was some years ago.

DR. LUSK said that great caution must be exercised in the performance of this operation. He recently saw a lady who had pelvic inflammation following the use of a stem pessary. There is now thickening of the broad ligaments. She visited a gynecologist, who advised the removal of the two ovaries. He could find no evidence of disease of the ovaries or tubes. In many of the operations which he has seen there has been no evidence of disease in the ovaries or tubes removed. He does not condemn the operation. He has operated in four cases in which there was distinct evidence of disease of the tube, with good success.

DR. H. P. C. WILSON thought that many cases have been operated on which should have been left alone; but there are many cases which nothing but the operation will relieve.

DR. E. W. JENKS, of Detroit, was aware of several cases in which the operation has been performed without benefit. Where the ovaries and tubes are diseased, there can be no question as to the propriety of its performance.

In many of these cases of so-called hystero-epilepsy, which are often nothing more than hysteria, he considers the removal of the ovaries and the stopping of the prospect of the patient becoming a mother, a positive wrong. The exploratory operation is not free from danger, as he knows of four deaths under these circumstances, in which no disease of the ovary was found.

DR. T. A. REAMY, of Cincinnati, said that one woman was sent to him with dysmenorrhœa and hysterical symptoms, with the request that he should remove the ovaries. It was a well-marked case. Five month's treatment of the cavity of the uterus with change in her surroundings and general treatment, resulted in entire recovery. He had had several other striking cases.

It is the exception to find the ovary healthy in women after the age of forty. He has been making these observations for ten or twelve years.

DR. EMMET said that this operation is sometimes done for dysmenorrhœa. He thinks that it should never be done for this condition. He considers dysmenorrhœa a neuralgic condition, the result of anæmia. When the dysmenorrhœa is relieved by operation, it is because the general nutrition is improved by the removal of the ovaries.

DR. SUTTON agreed with Dr. Baker that where, in an exploratory operation, the ovaries and tubes are found to be healthy, they should not be disturbed.

DR. M. D. MANN, of Buffalo, said that Dr. Emmet has made the statement that dysmenorrhœa is a neuralgic condition, and is not an indication for the operation. Although it may be neuralgic, he thought that the neuralgic condition may become so firmly established that it cannot be relieved without taking out the seat of the neuralgia. In two such cases he had thought the operation indicated. In one the patient was free from pain only three days in each month. He advised the operation, which was performed by Dr. Clark, of Niagara. The patient completely recovered.

The second case was his own. The woman had suffered for a number of years with excruciating pain. The ovaries were enlarged and tender. The whole abdomen was tender. The ovaries were removed and the patient entirely recovered her health. He cannot admit that there are no cases of ovarian dysmenorrhœa which can be relieved by the operation. He, however, thinks that they are rare.

DR. J. TABER JOHNSON did not recommend the operation except under well-marked indications. He agreed with those who fear that the operation may be performed oftener than necessary. Its use in nervous and neuralgic conditions is not always as beneficial as in some other conditions, myoma of the uterus, for example.

(*To be continued.*)

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, September 3, 1885.

(Concluded from page 331.)

THE PRESIDENT, B. F. BAER, M.D., IN THE CHAIR.

DR. E. E. MONTGOMERY read the following supplement to his paper on

BROMIDE OF ETHYL.

I read a paper on bromide of ethyl as an anæsthetic in labor before the April meeting of this Society. Although I did not attempt a history of the early administration of the drug, subsequent investigation has shown me that I did Dr. L. Turnbull injustice in not mentioning that to him we are indebted for the revival of this agent and its first use in this country. In following the German literature, by which I was led to use this drug in labor, I ascribed its first obstetrical use to Lebert, of Paris. The first case in which he used it was for the application of forceps, and occurred in March, 1881; but a paper, published by Dr. Turnbull (*Medical Bulletin*, June, 1880) shows that he had then used it in a second case of labor, and spoke in high terms of its peculiar advantages. Dr. H. Augustus Wilson had used it in labor prior to August 7, 1850, when he published an article upon this drug (*Medical and Surgical Reporter*, August 7, 1880). It becomes quite evident that the first obstetrical trial of this agent was made in this city, and the priority lies between the gentlemen named. Various mixtures of the ethyl have been ad-

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vocated in labor and minor surgical operations. Booth, of Ohio (*Therapeutic Gazette*, 1884-85), recommends alcohol two parts, chloroform and bromide of ethyl, each one part.

Dr. W. H. Byrd, of Quincy, Ill. (*Ther. Gaz.*, March, 1884), has used bromide of ethyl one part, chlorofrom three parts, alcohol four parts, in some ninety-eight cases, without a single unpleasant symptom. It has not everywhere received the same condemnation that is shown by the hesitancy to use it in this city. In spite of the bad name given it by two deaths under its use, and the apparently dangerous symptoms induced by experiments upon the lower animals, its use has been revived by Chisolm (*Maryland Med. Journ.*, 1882-3, ix. 388), and Prince (*St. Louis Med. and Surg. Journ.*, 1883, xiv. 297), who strongly urge its use in minor operations and preliminary to the administration of ether. The last named has reported five hundred cases in which it was used without a single unpleasant symptom.

A leading article in the *Therapeutic Gazette*, June, 1885, advocates a redistillation of a mixture of bromide of ethyl and olive oil as a valuable and safe anæsthetic in labor. These facts are referred to simply to induce the profession to give this anæsthetic a fair trial in ameliorating the terrible suffering of natural labor.

DR. MONTGOMERY exhibited a

UTERINE FIBROID POLYPUS.

Miss R., æt. 38 years, began to menstruate at 17 years. The flow was regular, quite free, lasting a week, and was attended with pain the first three days. Ten years ago she had a hemorrhage, and subsequently several such attacks. Two years later she had a severe hemorrhage, followed by a bloody discharge, continuing several months, since which time she has never been regular. The flow would occur frequently, be very profuse, and attended with pain and loss of flesh. The symptoms were more marked during the last year. At one of the hospital clinics, some years ago, the difficulty was ascribed to anteversion of the womb. Dr. Bourneville examined her three weeks ago, diagnosticated the condition fibroid polypus, and referred the case to me for treatment. She was quite pale, lips bloodless, complained of pelvic pain, and of a constant bloody discharge, which amounted to hemorrhage upon the slightest exertion. The vagina was dilated by a tumor the size of an orange, about whose pedicle could be felt the neck of the uterus. The finger passed into the os and about the tumor without difficulty. Every examination was followed by severe hemorrhage. The pedicle was cut through by means of the wire écraseur, and the tumor removed by means of polypus forceps.

Considerable hemorrhage followed its removal. As this was not controlled by applications of hot water, a tampon saturated with a solution of subsulphate of iron was introduced. This was removed on the second day. On the fourth her temperature was up to 103° F. She had a chill, and pains in various parts of her body. These symptoms vanished under the use of quinine, digitalis, and opium. Five weeks after the operation she appeared much improved; has had no bleeding since; her appetite and strength are greatly increased; the uterus is normal in size; the cervix still dilatable, and will admit the finger with pressure; the cervical membrane was in good condition.

The tumor was the size of an orange; the mucous membrane of the lower surface was ulcerated, so that vessels were ruptured, allowing hemorrhage on any exertion.

The case is of interest from the long continuance of the hemorrhage, and illustrates the importance of early and careful examination of the cavity of the uterus in cases of protracted hemorrhage.

DR. GOODELL seldom uses the wire now for the removal of uterine polypi. He prefers traction with twisting or enucleation by the finger. There is less bleeding, and he is afraid of "cupping" of the fundus uteri and its injury by being included in the wire loop. He had made traction with the obstetric forceps, and enucleated tumors so large as to rupture the perineum even after lateral incisions had been made in the labia. He has partially inverted the womb, enucleated the tumor, and then restored the organ to its proper form. The tumor sometimes occludes the os, and fetid pus from necrosis of the growth is imprisoned above it, giving rise to a suspicion of cancer.

DR. BAER thought Monsel's solution may have caused the high temperature. Vinegar would have been a better hemostatic, and it is also an antiseptic. From the appearance of the specimen a portion of the adventitious growth seems to have been left behind, and it would be interesting to know the history of the stump.

DR. PARISH has removed many fibroids of various sizes, and sometimes with degenerated tissues and fetid odors. The rapid recovery of Dr. Montgomery's patient was remarkable. It is much to be regretted when any portion of the tumor is left, since necrotic change is rapid and decided in such tissue, and there is danger of blood-poisoning. The pedicle, however, generally shrinks and disappears.

DR. GOODELL remarked that this tumor appeared to be sessile, and had been wholly removed. The pedicle proper is usually simply mucous membrane without adventitious tissue, and it makes very little difference if some of it is left behind, as it shrinks away and is absorbed.

DR. ALLEN sometimes regretted that he was compelled to leave a portion of pedicle or tumor in the uterus, but he has never seen any bad consequences follow it. He prefers vinegar to iron as a hemostatic, and considers it as good an antiseptic as carbolic acid.

DR. MONTGOMERY remarked that the wire evidently brought away all the tumor. There was no evidence of any remnant on examination to-day. In one case a portion of tumor or pedicle was unavoidably left, and he removed it some time afterwards by means of a tenaculum. He wounded his finger in doing so, and suffered from septicæmia. The woman had an attack of cellulitis.

NEWS ITEMS.

MORE RESIGNATIONS FROM THE CONGRESS. — Dr. John C. Dalton, of New York, has resigned the Presidency of the Section of Physiology; Dr. R. B. Maury, of Memphis, the Vice-Presidency of the Section of Gynecology; Dr. Thomas F. Rochester, of Buffalo, the Vice-Presidency of the Section of Medicine; Dr. E. Fletcher Ingalls, of Chicago, the Secretaryship of the Section of Laryngology; President Gilman, of Johns

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Hopkins University, the Councillorship in the Section of Medical Education, Legislation, and Registration; Dr. Thomas T. Sabine, of New York, the Councillorship in the Section of Anatomy; Dr. Thomas M. Markoe, of New York, the Councillorship in the Section of Surgery; and Dr. E. G. Loring, of New York, the Councillorship in the Section of Ophthalmology.

THE CHESTER COUNTY (PA.) MEDICAL SOCIETY AND THE INTERNATIONAL MEDICAL CONGRESS.—At the stated meeting of the Chester County Medical Society, held September 8th, the following preamble and resolutions were adopted:

Whereas, The members of this Society feel a lively interest in the prosperity of the American Medical Association and in the highest success the Ninth International Medical Congress, and believe that when a mistake has been made, it is better to correct it, than to ignore it through a false pride of consistency; therefore,

Resolved, That it is the judgment of this Society that, while the American Medical Association has a perfect right to enforce its Code of Ethics upon all associations subordinate to it, it has no such right as regards the International Medical Congress, a body with which it has no fixed connection, and which does not undertake to regulate matters of professional ethics. That the attempt to organize the Congress solely from its own membership and that of subordinate associations was most unwise and inhospitable, and calculated to lessen the influence and usefulness of the American Medical Association.

Resolved, That we hereby instruct our delegates to the next annual meeting of the American Medical Association to use all honorable endeavors to secure that the false step taken at New Orleans shall be retracted; and that those who led the Association into the present folly shall not be entrusted with the arrangements for the International Medical Congress.

PUBLIC OPINION ON THE CONGRESS OUTLOOK.—It will thus be observed that the changes made by the Committee in the appointees of the Congress are not of a character to inspire the very highest order of scientific work, nor do we believe that the Congress, as now organized, will attract that attention and interest it would have received under the plan of organization first proposed. The revolutionary work of the American Medical Association, in authorizing the changes made by its Committee, is entitled to every atom of criticism and censure it has received. There was no reason or justice in its action. This action will have but one result, that of lowering the standard of scientific work in this country and of introducing into the ranks of the profession an element of discord and disturbance which cannot be effaced during the next generation. The Association has given its entire influence towards elevating the claims of men who care more for their own advancement than for the general professional good. It has favored an alliance with ideas and principles which have no existence in the scientific creed of our times. The present organization of the Congress, as far as it is known, bears no comparison in point of ability and authority to the first organization. Inasmuch as it has been called into existence out of deference to false issues and demagogical ideas, its results will not only prove highly prejudicial to the success of the Congress, but can have only an unfavorable influence upon the status of the profession in the United States.—*Maryland Medical Journal.*

For the first time in its history the International Medical Congress has fallen into the sole management of a society of the country in which it is to meet. Although Sir James Paget, an ex-President, expressly affirms that this was not expected or desired when an invitation was given, yet it is evident from recent events that the society referred to intends to retain its hold, and force upon the Congress its own men and methods. The work of the Committee which met here in such secrecy on September 3d but too surely confirms this. The details show some indications of adroit wriggling to escape the results of previous blunders, but no manly meeting of the issues, and no recognition of the real demands of the profession. The Committee have utterly eliminated and blotted out Drs. Cole and Shoemaker, trusting, we presume, to gain back Philadelphia by thus making scapegoats of these gentlemen. They have also filled the vacancies in the Presidencies of the Sections. Their list of names suggests both freshness and decay, but does not fairly represent American medicine. And the profession will very quickly ask who many of these new men are who thus take the seats which have heretofore been held only by recognized leaders. Is our country to be made ridiculous by their upheaval, and the Congress turned into a menagerie of unknown doctors and ethical sticklers?

However, though the appointments are weak enough, they need not kill the Congress. But a much more serious thing remains: no attempt was made to remove the Code issue from the Congress. It is still incumbent on an American physician to subscribe to the American Medical Association's Code of Ethics in order to hold any official position in the Ninth International Congress —if it meets in this country. The stupidity, as well as absolute wrongfulness, of failing to meet this point is certainly beyond parallel. The good Lord only knows, perhaps, what a number of nice, venerable, determined old gentlemen we have here trying to manage our little medical world; but many of us are getting some inkling of their immeasurable and fathomless fatuity. It appears, at any rate, that they are bound to destroy the Congress, for they persist in forcing upon it restrictions which cut off from the Congress and impugn the respectibility of a large number of the most honored men in our profession. In thus doing they violate justice and right, break the pledges at Copenhagen, and affront their fellow-physicians here. Of course a bitter controversy is inevitable; and we are sorrowfully forced to the conclusion that there is at present no hope for the Congress whatever. The profession here and in other centres is almost a unit against the policy of the Association and its Committee, and it will continue to protest against the organization of a meeting which will be so thoroughly misrepresentative of American medicine.—*The Medical Record.*

THE DISSENSIONS IN AMERICA.—Under this heading the *Medical Times*, of London, publishes a letter received from Dr. N. S. Davis, of Chicago, from which we make the following extract:

"As there is only one body in England representative

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of the whole English or British profession, the British Medical Association, so there is only one in the United States which could, under any possible circumstances, represent the profession in the United States; and that is the American Medical Association. From Maine to California, and from the British possessions on the North to Mexico on the South, every State and Territory is represented in that body. Now, you say in your letter that you are 'sure that it was present to the mind of every one there (Copenhagen) that the invitation (to have the Congress meet in Washington in 1887) was one from the profession of America and not from any section of it, or any particular medical society in it.' To which it may be replied: The invitation was extended by Dr. Billings, and Dr. Billings had been appointed to extend the invitation. Who appointed him? Whence came his authority for assuring the Congress that it would receive a warm welcome in this country in 1887? He was one of a committee *appointed at* a meeting of the American Medical Association *by* the President of the Association, who acted *for* the Association, and by the authority of the Association. . . . . The American Medical Association has invited the Congress to meet in Washington in 1887, and the invitation has been accepted. The American Medical Association is fully competent to make all necessary arrangements for that meeting, on as liberal a basis as has characterized any of the preceding Congresses. We only ask that our brethren in Europe will reserve their comments until the programme is completed and before them."

The Editor of the *Medical Times* appends to this letter the following note:

"We have not space in the present number to deal fully with Dr. Davis's letter or with the other documents stating the case of the American Medical Association which have reached us. We may, however, point out here that the British Medical Association has never claimed to represent the whole English profession, though we believe its claim to do so, if it should ever be so ill-advised as to make it, would be much more valid than the claim put forward on behalf of the American Medical Association. Whatever Dr. Davis may say, the fact remains, as the officers of the London Congress have stated, that on no previous occasion has any medical body attempted to capture and run the International Congress as the American Association is now attempting to do."

A NAVAL MEDICAL EXAMINING BOARD is now in session at the Naval Hospital, Philadelphia, for the examination of candidates for admission into the Medical Corps of the Navy, in which there are 13 vacancies. Candidates must be between 21 and 26 years of age, and must apply to the Secretary of the Navy for permission to appear before the Board.

DR. WILLIAM GOODELL, of Philadelphia, was recently elected an honorary member of the British Gynecological Society.

RESIGNATION OF SURGEON-GENERAL HAMILTON.—Dr. J. B. Hamilton has tendered his resignation as Surgeon-General of the Marine-Hospital Service, to take effect November 1, but he remains in the service with the rank of surgeon. It is expected that he will be stationed at Chicago. Dr. Hamilton was promoted to the office of Surgeon-General in 1879.

SMALLPOX NOT ABATING IN CANADA.—There were twenty-seven deaths from smallpox in Montreal on the 21st.

A statement submitted at the civic Board of Health on the 22d inst., showed that of 184 deaths from smallpox for six days ending September 18, 169 were French Catholics, 9 other Catholics, and 6 Protestants. There were 50 deaths in the adjoining municipality in the last four days. The Gray nuns are taking charge of 186 patients in the city and 28 in Ste. Cunnegonde.

At the meeting of the Citizens' Committee, held on 22d inst., when the subject of compulsory vaccination came up, Alderman Gray, Chairman of the Health Committee, said that if they attempted to carry out compulsory vaccination in Quebec and the suburbs, the French people there would repel them by force.

SMALLPOX QUARANTINE.—The Governor of Massachusetts has requested the Secretary of the Treasury to appoint medical inspectors on the Canadian border, east of Lake Ontario, to inspect passengers arriving by rail through northern Vermont.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE-HOSPITAL SERVICE, FOR THE FOUR WEEKS ENDING SEPTEMBER 19, 1885.

VANSANT, JOHN, *Surgeon.*—To proceed to New Orleans, La., September 16, 1885.

HUTTON, W. H. H., *Surgeon.*—When relieved, to proceed to Mobile, Ala., September 16, 1885.

LONG, W. H., *Surgeon.*—Granted leave of absence for ten days, September 1, 1885. When relieved, to proceed to Detroit, Mich., September 19, 1885.

FESSENDEN, C. S. D., *Surgeon.*—To proceed to Norfolk, Va., September 16, 1885.

SAWTELLE, H. W., *Surgeon.*—When relieved, to proceed to San Francisco, Cal., September 18, 1885.

GODFREY, John, *Surgeon.*—When relieved, to proceed to Louisville, Ky., September 16, 1885.

GOLDSBOROUGH, C. B., *Passed Assistant Surgeon.*—When relieved, to proceed to St. Louis, Mo.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY DURING THE WEEK ENDING SEPTEMBER 19, 1885.

MURRAY, J. M., *Passed Assistant Surgeon.*—Resignation accepted to take effect January 1, 1886.

ROSS, J. W., *Surgeon.*—To special duty at New York.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, FROM SEPTEMBER 15 TO SEPTEMBER 21, 1885.

CAMPBELL, JOHN, *Colonel and Surgeon.*—Retired from active service, September 16, 1885.—*S. O. 212, A. G. O.*, September 16, 1885.

AINSWORTH, F. C., *Captain and Assistant Surgeon.*—From Department of Texas to New York City, for duty as Recorder of the Army Medical Examining Board.—*S. O. 214, A. G. O.*, September 18, 1885.

SHANNON, WM. C., *Captain and Assistant Surgeon.*—Granted leave of absence for four months, to take effect about October 1.—*S. O. 215, A. G. O.*, September 19, 1885.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLVII. SATURDAY, OCTOBER 3, 1885. No. 14

ORIGINAL ARTICLES.

THE OCCURRENCE OF ALBUMEN, SUGAR, ACETONE, AND DIACETIC ACID IN THE URINE.

BY J. P. CROZER GRIFFITH, M.D.,
OF PHILADELPHIA.

ALTHOUGH so much has been written on the presence in the urine of albumen in its various forms, and of sugar; as also of certain other bodies whose nature has not been so well known; yet the method of recognition and clinical significance of some of these substances has been, at least in general, so little understood, that any lucid and systematic discussion of the subject cannot fail to be of advantage to the profession. This has been done very clearly in an address delivered by v. Jaksch before the Vienna medic. Doctor-Collegium, in December last, and still more elaborately in a recently published monograph by him on "Acetonuria and Diaceturia."

As Dr. v. Jaksch has requested me to present his views on this subject to the American profession, and encouraged by the fact that I have had the opportunity to study many of the cases on which he has made his observations, to note the reaction of the various tests employed in urinary analysis, and to hear the relation between the symptoms of the patient and the morbid elements in the urine frequently and fully discussed in the wards which he visits, I shall endeavor to give a brief résumé of the matter, so far, at least, as it bears upon the needs of the practising physician. In the examination of the urine for albumen, three tests can be advantageously used:

I. Boil the urine and then add a few drops of nitric acid. Any precipitate produced by boiling is formed either of phosphates or of albumen. If it becomes dissolved on the addition of the acid, it consists of phosphates; if not dissolved, it is albumen.

II. Filter the urine, and then add a nearly equal quantity of acetic acid. To this mixture add a few drops of a solution of ferrocyanide of potassium. A precipitate or cloudiness produced thereby consists of albumen.

III. Add to the urine a solution of caustic potash, and then a few drops of a solution of sulphate of copper. Albumen, if present, dissolves the precipitated oxide of copper, and produces a red-violet color.

As is well known, I. contains two possible sources of error, when but a small amount of albumen exists in the urine. 1st. If too much nitric acid be employed, the albumen becomes redissolved in the form of acid-albumen. 2d. If not enough of the reagent be added, all the basic phosphates may not be converted into soluble acid phosphates, and the albumen will then remain in solution as albuminate.

With II. there is only one possible disadvantage, *i. e.*, that if microörganisms in large numbers have developed, a clear filtrate cannot be obtained. It becomes necessary, in this case, to compare a specimen of the cloudy filtrate with another to which the reagents have been added. Any increase in cloudiness denotes the presence of albumen. But it is easy to prevent the formation of microörganisms by adding a few drops of a solution of carbolic acid to the urine while still fresh. The test is, too, so easy of employment, so extremely delicate, and so reliable, that it cannot be too highly recommended.

A mistake could arise, however, if we fail to observe whether the urine becomes at all cloudy on the addition of the acetic acid. Any cloudiness at this stage of the procedure indicates the presence of mucin or uric acid. It is easy, of course, to know whether albumen be present, by simply continuing the process, and noticing whether the cloudiness have increased.

These three tests, as already described, can be used in the following manner to determine the nature of the albuminous body in the urine.

If a precipitate is obtained with all three, or, especially, with I. and II., at least serum-albumen is present.

Propeptone is probably present when II. shows the existence of albumen, and I. forms a precipitate only after cooling; which precipitate, filtered and tested according to III., produces the red-violet color. Another test for propeptone is the following: Add to the urine a saturated salt solution, and then some drops of acetic acid. If propeptone be present, a precipitate is produced which disappears on the addition of an excess of acetic acid followed by warming, but which reappears when the solution again becomes cool.

If both I. and II. fail, but III. gives a positive result, there is peptone in the urine. But for the examination for peptone, this test is usually insufficient, and, when the urine contains serum-albumen also, the process, both for propeptone and peptone, becomes much more complicated. The procedures can be found fully described in the standard work of Neubauer and Vogel.

The significance of the presence of serum-albumen in the urine is a subject far too great for discussion here. The occurrence of propeptone, or of globulin, is of little clinical importance, so far, at least, as our present knowledge of them teaches us.

On the other hand, the discovery of peptone is often of the greatest diagnostic and prognostic value. Peptone in the urine is, as a rule, an indication of the formation somewhere in the body of pus, and the subsequent disintegration of the pus-cells. V. Jaksch mentions a case in which there were all the symptoms of deep-seated suppuration, yet no peptone could at any time be found in the urine. At the autopsy, a

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widespread development of sarcomatous tumors was discovered.

Epidemic cerebro-spinal meningitis is accompanied by an extensive production of pus within the meninges of the brain and cord, and an excretion of peptone through the urine. Tubercular meningitis, on the contrary, has no pus, and, provided there are no centres of suppuration in the lungs or elsewhere, has no peptone in the urine. The diagnosis between the two disorders must sometimes be made purely on the presence or absence of peptonuria.

Regarding the examination of the urine for *sugar*, the physician certainly stands ready to welcome any method which is at once accurate, delicate, and invariably reliable. Trommer's test is the best we have had, and is very delicate. But it has been found that the same reaction can be produced by very many other substances, especially if the solution be boiled a considerable time. To be certain, then, from Trommer's test that sugar is actually present, the oxide of copper must be precipitated *before the fluid actually boils*. The test only succeeds, if this precaution is taken, when the urine is relatively rich in sugar.

The method of Emil Fischer seems to fulfil all the requirements. It is simple and delicate (showing one part of sugar in 100,000 of fluid), and up to the present time, at least, there has been no other substance than sugar found with which it will give the same reaction. The test depends upon the fact that grape sugar with phenylhydracin (C_6H_5,NH,NH_2) produces a substance called "phenylglucosazon," easily recognizable to the naked eye, and still more so under the microscope, as consisting of long, yellow, needle-shaped crystals.

The method of procedure is very simple. Mix fifty c.cm. urine and two grammes hydrochlorate of phenylhydracin with one and one half grammes acetate of soda dissolved in twenty c.cm. water. Warm gently (preferably over a water bath), and in ten or fifteen minutes, if sugar be present, the phenylglucosazon is precipitated, usually in crystalline form; sometimes amorphous. Even if the latter be the case, still some of the characteristic crystals can be found under a microscope of low power. Or the amorphous mass can be made to recrystallize out of alcohol. This method is exceedingly delicate, as already stated. I remember very distinctly a case of tumor of the cerebellum, in which the presence in the urine of sugar was made perfectly evident by Fisher's test, while that of Trommer gave no clear result. The procedure can of course be still further simplified by keeping the solution of acetate of soda ready for use, and by *measuring* the phenylhydracin after the first weighing to determine the volume.

The subject of acetonuria and diaceturia, which v. Jaksch has treated exhaustively in his monograph, deserves to receive more general attention. Of the various tests for acetone, the following (Legal's) is the one most easily carried out, and is reliable except where the urine contains but small quantities of the substance. A few crystals of sodium nitroprusside are shaken with water in a test-tube, thus preparing a fresh solution of the chemical. Some drops of this are added to the urine to be examined, and the mixture is then made distinctly alkaline by the addition of a solution of caustic potash. A red color is thereupon developed, whether or not acetone be present. This color rapidly fades; but if twenty or thirty drops of acetic acid be added, there appears after some seconds, in case acetone be present, following the course of the drops of acid, an intense, deep purple color.

But, as a rule, the quantity of acetone is too small to be detected in this manner, and it becomes necessary to isolate it by the distillation of the urine, previously slightly acidulated with sulphuric acid. This is a process too tedious and troublesome to be commonly employed.

In case, however, one wishes to distil, and then test the urine, the following methods especially recommend themselves:

1st. The iodoform test of Lieben—the most delicate—is as follows:

Add to the distilled urine a small quantity of potassium hydrate; then some drops of a solution of iodine and potassium iodide. If acetone, even in minute quantity, be present, a heavy yellow precipitate (iodoform) is *at once* produced. The only source of error in the use of this test is the possible presence of alcohol in the distillate, in which case, however, the formation of iodoform crystals takes place *but slowly*.

2d. Gunning employs, instead of the potassium hydrate and the solution of iodine and the iodide, ammonium hydrate and the tincture of iodine. Alcohol then causes no precipitate, while acetone produces one of iodoform, in addition to a black deposit of iodine which always falls although there may be no acetone. The precipitated iodine is soon redissolved in case the urine contains much acetone. If it contain but little, the iodoform crystals may be seen after 24 to 48 hours forming a thin layer resting upon the black precipitate of iodine.

3d. Reynolds's test: This depends on the solubility of mercuric oxide in acetone. A solution of caustic potash is added in excess to a solution of the bichloride of mercury, thus precipitating the oxide of mercury. This is mixed with the distillate to be examined, and the mixture then filtered. If acetone be present, a portion of the mercuric oxide has been dissolved by it before filtering, and can be detected in the filtrate by the ordinary reaction with sulphide of ammonium.

The method of Legal, previously described, is not so useful for the distilled as for the undistilled urine.

Diacetic acid has the peculiarity that it produces with a solution of the chloride of iron a Bordeaux-red color. Also that urine containing it yields very distinctly the various reactions for acetone. Yet the matter is not quite so simple as it would at first appear, inasmuch as there are a number of other substances which can produce the same, or a very similar coloration. Such, for example, are salts of formic and acetic acids; carbolic and salicylic acids, decomposition products of thallin, antipyrin and kairin, etc. To prove positively the existence of diacetic acid in urine, v. Jaksch advises the following procedure. To urine as fresh as possible are added a few drops of a solution of chloride of iron. If a

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precipitation of phosphates takes place, it is removed by filtration, and the filtrate again tested. In case a Bordeaux-red color is produced, a portion of urine is boiled, and another portion acidulated with sulphuric acid, and shaken with ether. If the red coloration disappears on boiling the specimen of urine in which the test has already been made; if the reaction occurs but slightly, or not at all in the urine prepared by boiling; if after twenty-four hours the red color produced by testing the ether extract grows pale; and if, however, the reactions for acetone in the urine are very distinct; then we have to do with diacetic acid. V. Jaksch particularly emphasizes the fact, that, although urine containing diacetic acid gives so well the reactions for acetone, yet there is no acetone as such contained in it. Diacetic acid is, indeed, a substance which very readily resolves itself into acetone, alcohol, and carbonic dioxide.

The clinical significance of the presence of one of these two substances in the urine is very different from that of the other. Acetone accompanies cases whose course is, as a rule, favorable; at any rate, its appearance is no sign of ill-omen.

Diaceturia, on the other hand, is a most dangerous complication, and points to an approaching death in coma.

Acetone, in very minute quantities, is a constituent of normal urine. Pathological acetonuria, *i. e.*, where the acetone exceeds 0.01 gramme in the daily amount of urine excreted, accompanies all diseases with *high continued fever*, independently of what the nature of the disease may be. A diminution of temperature in any malady is accompanied by a corresponding lessening of the amount of acetone eliminated; and, on the other hand, if from any cause, whether a relapse or the development of some other disease, the temperature again rises,—acetonuria is again proportionately increased. Acetonuria often, although not necessarily, accompanies *diabetes*. There appears to be no relation whatever between glycosuria and acetonuria. The development of acetone in the urine of diabetic patients is sometimes accompanied by various unpleasant subjective symptoms, such as headache, loss of appetite, disorders of digestion, feeling of weakness, etc., which, however, last but a few hours. Apart from this, acetone in diabetes appears to have but little clinical significance, except that it may be the precursor of, and become substituted by, diacetic acid. In even the early stages of *carcinoma* acetonuria sometimes occurs, and, as in diabetes, is ushered in by subjective symptoms. V. Jaksch believes it probable that the cachectic condition develops sooner in such cases than in those not complicated by the presence of acetone.

Inanition, from whatever cause, is often accompanied by large amounts of acetone in the urine. Likewise, also, certain *psychoses*, accompanied by great mental excitement, or mania, exhibit at times very large quantities of acetone. Another class of cases, very interesting, but very rare, is that in which the acetonuria is a disease *sui generis*, and is the expression of an *autointoxication* with the substance (acetonæmia). I have had the opportunity of seeing two cases which must be assigned to this category. The first was that of a man brought into the hospital wildly delirious. His previous health had been excellent, and no cause could be assigned for his condition, unless, perhaps, a possible error in diet a day or two before. A physical examination revealed nothing amiss, except that there was in the urine an enormous amount of acetone. After a few days the acetone disappeared, and the man regained simultaneously his usual health.

The second was an exceedingly well-marked case of Addison's disease. The patient, after having been under observation many months, rapidly developed restlessness, excitement, delirium, and finally coma ending in death. In the meantime the urine had been found exceedingly rich in acetone. Diacetic acid never occurs in normal urine, and its presence in the case of adults is always a moment of the gravest import; whereas it rarely accompanies *high continued fever* in patients above the age of childhood; when it does appear it indicates that the malady will probably run a very malignant course. In acute febrile disorders in children, on the contrary, v. Jaksch has found diaceturia comparatively common, and the prognosis is not rendered unfavorable thereby. When accompanying fever, either in adults or children, it usually appears with the commencement of the disease, *i. e.*, it is not preceded by acetonuria, to which symptom, however, it frequently gives place as the fever diminishes. The well-known *diabetic diaceturia*, the precursor of diabetic coma, and often the successor to a long-continued acetonuria, is commonly observed in cases far advanced and much emaciated. It is usually ushered in by subjective symptoms, such as a feeling of weakness, depression, sometimes an inclination to sleep, and occasionally also by a tendency to coma, which either deepens or soon passes away, although the diaceturia continues. Indeed, diabetic patients suffering from diaceturia are liable at any time to develop coma and die. The nature of the diet, or the medicaments employed, appear to have no influence whatever on the presence or the degree of the diaceturia. As a rule, there is no relation between amount of sugar and that of diacetic acid eliminated. Sometimes, however, a sudden diminution of the glycosuria is followed by the appearance of a large quantity of diacetic acid, in which case coma rapidly develops, and death probably ensues.

Diaceturia, like acetonuria, sometimes appears in *mental diseases*, accompanied by conditions of great excitement, in *inanition* and in *carcinoma*. A *coma carcinomatosum*, similar to that of diabetes, and accompanied by diaceturia, has also been described. Death, however, with the symptoms of diabetic coma, can occur *without* the existence of either acetone or diacetic acid in the urine. V. Jaksch, therefore, proposes to do away with the name "coma diabeticum," and to apply to all those cases of coma, from whatever cause, which are accompanied by diaceturia, the name "coma diaceticum." There is also a diaceturia, the expression of an *autointoxication* from diacetic acid in the system, in which the symptoms appear without the existence of any other grave disease. In adults this is very dangerous, although fortunately of rare occurrence; beginning with vomiting, great

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dyspnœa, and jactitation, it soon terminates in coma and death.

In the case of children it is a matter of much less moment, and occurs very much more frequently. V. Jaksch has repeatedly observed children in whom the signs of any other disease were wanting, but whose urine was enormously rich in diacetic acid. In such a case the child feels weak, has a thickly coated tongue, often slight conjunctival catarrh, sometimes vomiting, usually constipation, and very slight or no fever. In two or three days all the symptoms, together with the diaceturia, disappear. Other cases have more strongly developed nervous symptoms; and he believes that all these, as well as a portion of those described as "eclampsia infantum," must be attributed to an autointoxication with diacetic acid.

NOTE.—"Phenylhydracinchlorhydrat," which is, probably, not yet to be purchased in the United States, can be procured from C. A. F. Kahlbaum, Chemische Fabrik, Berlin, S. O., at the cost of six marks ($1.50) per 100 grammes.

DISINFECTANTS.

PRELIMINARY REPORT OF THE COMMITTEE ON DISINFECTANTS OF THE AMERICAN PUBLIC HEALTH ASSOCIATION.

XXI.

PRACTICAL EXPERIMENTS ON THE STERILIZATION OF FECES.

BY GEORGE M. STERNBERG, M.D.,
MAJOR AND SURGEON, U. S. ARMY.

IN the experimental researches heretofore recorded in this series of papers the germicidal value of various chemical reagents has been established by biological tests made with pure cultures of various microörganisms or with "broken-down" beef-tea. The latter test I consider the most difficult, as the putrid beef-tea, after having been exposed in the laboratory for several days, contains a variety of microörganisms, including several species of bacilli, especially *B. subtilis*, the spores of which have an extreme resistance. The results obtained in these experiments may, therefore, be safely used as a basis for determining the quantity of the chemical agents tested which will be necessary to sterilize *fluids* containing microörganisms, when these fluids can be fairly compared with the putrid beef solution used in our experiments—due allowance being made on the side of safety when practical recommendations are to be made. The liquid discharges from the bowels of patients with cholera, typhoid fever, advanced tuberculosis, septic diarrhœa, etc., may be fairly compared with our broken-down beef-tea, as regards physical and biological characters, and I should say, in general, that it would be within the limits of safety to prescribe twice the quantity of a given agent, for the disinfection of such material, that has been found necessary to sterilize the same amount of putrid beef stock.

But when we have to deal with formed or semisolid fecal matter the conditions are very different, and the data obtained in our experiments upon fluid material cannot be applied without making proper allowance for the larger amount of organic material associated with the germs which are to be destroyed, and for the fact that germs enclosed in masses of albuminous material may be protected from the action of the disinfecting agent. Especial care will be required in the practical use of the oxidizing disinfectants, such as potassium permanganate and the hypochlorites of lime and of soda. These agents owe their power to the fact that they are promptly decomposed by contact with organic matter, but this decomposition is entirely a chemical reaction, and only a given amount of organic material can be oxidized by a given quantity of the oxidizing agent; on the other hand, the disinfecting power of such agents is neutralized by a given quantity of organic material, whether this is in the form of living microörganisms, or of dead animal or vegetable matter. If, then, the organic material is in excess, germs embedded in it will escape destruction, and the only safe rule in the practical use of oxidizing disinfectants is to *use such a quantity of the disinfecting agent that it shall be in excess after the reaction has taken place.*

The following experiments have been made for the purpose of determining within the limits necessary for practical purposes the quantity of the disinfecting solutions heretofore recommended by the Committee on Disinfectants required to sterilize a given quantity of feces (normal).

Standard Solution No. 1.

August. 25.—Four ounces of semisolid feces added to *one pint* of standard solution No. 1, available chlorine 0.65 per cent. At the end of twenty-four hours no chlorine remained in the mixture, and two culture flasks inoculated with the material broke down—failure to sterilize.

28th.—Four ounces of semisolid feces added to *one quart* of standard solution No. 1, containing 0.85 per cent. of available chlorine. At the end of twenty-four hours a trace of chlorine (0.01 per cent.) remained; there was no appearance or odor of feces in the mixture—no cultures were made in this experiment.

31st.—Seven ounces of semisolid feces added to *two quarts* of standard solution No. 1, available chlorine 0.83 per cent. At the end of one hour there was a trace of chlorine in the mixture. Two culture-flasks inoculated remained sterile.

September 5.—Two and one-half ounces of semisolid feces added to *one quart* of standard solution No. 1, available chlorine 0.9 per cent. At the end of one hour the mixture was found to contain 0.1 per cent. of available chlorine. Two culture-flasks were inoculated at the end of one hour; both broke down after remaining twenty-four hours in the oven. As both flasks contained a pure culture of *B. subtilis* it was evident that this was the most resistant organism present in the material, and that all other organisms were destroyed,

7th.—Six and one-half ounces of semisolid feces added to *two quarts* of standard solution No. 1, containing 0.9 per cent. of available chlorine. At the end of three hours the available chlorine present

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in the mixture was found to be 0.11 per cent., and at the end of twenty-four hours 0.1 per cent. Two tubes inoculated at the end of three hours remained sterile,

I conclude from these experiments that in practice it will be safe to use one quart of standard solution No. 1 for every two ounces of feces to be sterilized. Vallin estimates a complete (daily) evacuation of the bowels at from 150 to 200 grammes—say six to eight ounces. Let us keep on the safe side and allow one gallon of this solution, containing four ounces of chloride of lime of the best quality for the sterilization of a normal alvine evacuation. The daily cost *per capita*, for sterilizing feces would then be less than one cent, for chloride of lime can be bought by the quantity for three and a half cents per pound.[1]

Standard Solution No. 2.

August 30.—Two and one-half ounces of semisolid feces added to *one pint* of standard solution No. 2. The material was very completely deodorized by the potassium permanganate in the solution. A thorough admixture and breaking up of the fecal matter was effected in this and in the following experiments by stirring with a glass rod. Two culture-flasks were inoculated at the end of two hours; both remained sterile.

September 6.—Seven and one-half ounces of semisolid feces added to *one quart* of standard solution No. 2. There was a decided fecal odor at the end of twenty-four hours. Two culture-flasks inoculated at the end of twenty-four hours broke down with *B. termo.*

8th.—Seven ounces of semisolid feces added to *two quarts* of standard solution No. 2. Only a slight fecal odor at the end of twenty-four hours. A copper wire dipped into the mixture showed the presence of a salt of mercury in solution—deposit of metallic mercury on wire. Two culture-tubes inoculated in twenty-four hours remained sterile.

Making a liberal allowance on the side of safety, we may say that one gallon of this standard solution, containing two drachms each of mercuric chloride and potassium permanganate, may be relied upon for sterilization and deodorization of a normal alvine evacuation. The cost would be about two cents, if the materials were purchased by the quantity, and the solution made (without expense for transportation) as required.

The following experiments have been made with a solution containing four ounces of mercuric chloride and one pound of cupric sulphate to the gallon of water (standard concentrated solution). For use, this standard solution is diluted by adding eight fluid-ounces to the gallon of water.

August 29.—Eight ounces of semisolid feces added to *one quart* of above solution. Fecal odor not destroyed as well as by standard solution No. 2. Two culture-flasks inoculated at the end of twenty-four hours remained sterile.

September 2.—Three ounces of formed feces added to one quart of the above mentioned solution. Two culture-flasks inoculated at the end of twenty-four hours remained sterile.

[1] Price taken from the last number of the Druggist's Circular.

The following experiment has been made with solution of carbolic acid.

2d.—One and one-half ounces of formed feces added to *one quart* of a 5 per cent. solution of carbolic acid. Two culture-flasks inoculated at the end of twenty-four hours broke down with *B. subtilis, a pure culture*, showing that the spores of this bacillus had not been killed, but that the material had been sterilized so far as *B. termo*, and other putrefactive organisms present, were concerned.

A CASE OF DISLOCATION OF THE HUMERUS IN WHICH DUGAS'S POSTURE-TEST FAILED.

By WESLEY C. STICK, M.D.,
of Glenville, York County, Pa.

On February 24, 1885, I was called to see Mrs. B., aged about sixty-five years, who had been suffering all winter with a severe cough and a great deal of expectoration, and consequently was greatly emaciated and feeble.

She slipped on an icy walk and fell on her left shoulder, about eight hours before I saw her, from which she was suffering intensely. Upon examination I found a depression under the acromion process of the left scapula. The elbow was hanging from the side of the body and backwards.

The line of the axis of the shaft of the humerus was directed towards the clavicle, where I could easily feel the head of the humerus rotate whenever I rotated that bone. Finally, I applied Dugas's posture-test. She brought her arm tight against the walls of the chest, while her fingers touched the opposite shoulder; this, however, was very painful. I nevertheless was confident that I had to do with a forward dislocation of the shoulder-joint, and attempted to reduce the same as follows:

I tried the method with the heel in the axilla, but was not successful. I had her seated on a chair, my knee in the axilla, an assistant holding the right arm, while another grasped the left humerus above the elbow with one hand, and the forearm, flexed to a right angle, with the other. We now made traction backwards, gradually raising the arm to the level of the shoulder, then bringing it forwards. During this period with one hand I steadied the scapula, and with the other made pressure upon the head of the humerus in the direction of the glenoid cavity. The arm was now brought down, and the deformity had disappeared. Her pain was nearly all gone. She could perform the different movements of her arm with ease, and nearly without pain. She confined her arm in a sling for one week. Since then her arm is well.

I report this case for the purpose of showing that Dugas's posture-test is not infallible, as claimed by Dr. Frank H. Hamilton, or that bringing the arm and elbow against the side of the chest, while the fingers touch the opposite shoulder, is not a "mechanical impossibility" in dislocation of the shoulder-joint.

Her emaciation, and the flaccid condition of the tissues, I think, account for the failure of this *almost* "infallible" test.

September 3, 1885.

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MEDICAL PROGRESS.

THE CURE OF PULMONARY GANGRENE BY THE INHALATION OF AIR IMPREGNATED WITH CARBOLIC ACID.—DR. CONSTANTINE PAUL, at the recent meeting of the Congress for the Advancement of Science, called attention to the efficacy of carbolic inhalations for the cure of pulmonary abscess.

Seven cases were reported in which the remedy was successfully applied, no failure being recorded. Dr. Paul, in considering the value of the proposed remedy, compares the results obtained with those secured by the inhalation of aromatics, etc., which are eliminated entirely through the pulmonary and bronchial apparatus. These, with the exception of eucalyptus, are pronounced valueless, because not possessing the power of checking putrefaction in the pulmonary tissue.

As a probable explanation of the method by which the carbolic acid acts in checking the putrefactive process, M. Paul refers to the results obtained by various bacteriologists, who have found this agent efficient in the destruction of bacteria.

In view of the fact that pulmonary gangrene is regarded by most authorities as almost constantly fatal, M. Paul considers the results obtained as noteworthy, and that the method is an acquisition to the therapeutics of the disease, and worthy of further trial. — *Gazette Médicale de Paris*, August 29, 1885.

DEATH DUE TO RUPTURE OF SUPPURATING BRONCHIAL GLANDS. — A somewhat uncommon cause of sudden death has recently been the subject of a coroner's inquest, and of some very unjust charges against the medical man in attendance. A little girl, aged 12, was taken to consult Mr. G. A. Tait, who found that respiration was difficult and prolonged, and that the child was feverish. Believing that he had to do with a case of ordinary laryngitis, he gave a dose of ipecacuanha, and, when summoned almost immediately afterwards to attend the child at home, he did not do so, supposing that the mother had been alarmed by the commencement of vomiting. Unfortunately, the child was suffering from tubercular disease of the bronchial glands; the glands had suppurated and broken down, finally opening into the trachea, and causing death in a very short time. Though a rare event, a certain number of cases of this kind are on record; in some a large piece of caseous material has become suddenly detached and impacted in the trachea, causing death in a few moments. The difficulty of diagnosis is exceedingly great, and has rarely been surmounted; the history is of great importance, but, in persons belonging to the class to which this little girl belonged, it is very difficult to obtain, and not very trustworthy. The condition is one which, both from the clinical and pathological point of view, would well repay further investigation.— *The British Medical Journal*, August 29, 1885.

OBSERVATIONS ON HEMIGLOSSITIS.—DR. PAUL GUETERBOCK, in a paper on hemiglossitis, gives the following résumé of his observations:

1. In several and indeed the most carefully observed cases of hemiglossitis, the extension of the pathological process was observed in the branches of the trigeminal nerve in the affected side of the tongue.

2. In several additional cases of hemiglossitis the participation of the chorda tympani in the disturbance, in addition to that of the right lingual branch of the trigeminal nerve, was at least very probable.

3. The unilateral affection of the tongue is never limited only to the territory of the glossopharyngeal nerve, but a sympathetic affection on the same side throughout the extent of the trigeminal nerve can, with certainty, be confirmed in cases of this order.

4. The influence of the hypoglossal nerve upon the development of hemiglossitis, up to the present time, cannot be demonstrated.

5. In like manner, the same may be said of the vasomotor nerves of the tongue, but their indirect influence in one-sided inflammation of the tongue cannot be denied.

6. In conclusion, the manner in which nervous derangement produces hemiglossitis is not discovered by direct examination, but from its analogy with herpes zoster in other regions of the body, it must be concluded that it is due to divers unfavorable influences, which the affected nerves experience either in their ganglia or in their course to the lingual mucous membrane, and also to wounds, inflammatory processes, and sympathy with pathological conditions of other portions of the nervous system—in a word, to any influence which can produce a unilateral increase of function in a nerve of the tongue.

From such unilateral increase of function may result modification of the affected tissue, and, in consequence of the latter, the introduction of infectious material from which may originate all forms of inflammation, ranging from the superficial formation of isolated vesicles to abscess and total gangrene of one-half of the tongue.—*Deutsche Zeitschrift für Chirurgie*, July, 1885.

THE PASSAGE OF PATHOGENIC MICROBES FROM THE MOTHER TO THE FŒTUS, AND THROUGH THE MILK.—M. KOUBASSOFF, by experimental investigations made on lower animals concerning the passage of pathogenic microbes from mother to fœtus, and through the milk, arrives at the following conclusions;

1. The bacilli of charbon, *rouget*, and tuberculosis inoculated on one female passed into the lacteal secretion.

2. Having once appeared in the milk, they remained until the end of lactation, or until the death of the animal.

3. The young fed with the milk containing the bacilli of rouget, charbon, or tuberculosis do not contract these diseases, and survive even when the mothers perish.

4. The passage of microbes from the mother to the fœtus depends, probably, upon the existence of direct communication between the bloodvessels of the mother and those of the fœtus.—*Gazette Hebdomadaire de Médecine et de Chirurgie*, August 28, 1885.

THE BACILLI OF LEPROSY.—PAUL GUTTMANN, in a careful study of the bacilli of leprosy, observed in elevated nodosities in a girl twelve and a half years old, found the microbes always collected in cells, a feature which distinguishes them at once from the bacilli of tuberculosis, while the fact that they stain more easily than the latter further distinguishes them.

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The bacilli are found especially in the skin, but also in other organs the seat of the disease, and even in the blood. As a rule, the organisms are extremely numerous at the seat of the lesions. Their microscopic appearances are the same in every case, and hence it is no longer doubtful that they are the cause of the leprosy, notwithstanding the failure of attempts to inoculate animals. These seem to be refractory to the disease, inasmuch as in no case has it ever been observed among them.—*Berliner klin. Wochenschrift*, 1885, No. 7.

THE PARTIAL REPRODUCTION OF THE TESTICLE.—PROF. LUIGI GRIFFINI, continuing upon frogs his experiments begun in 1882 upon dogs and cocks, concludes:

1. That in the frog, partial reproduction of the testicle occurs.

2. That the newly formed parenchyma is derived from preëxisting tissue.

3. That the plasmatic cells of the stroma take no part in the production of the new glandular parenchyma. —*Gazzetta degli Ospitali*, August 26, 1885.

THE ABSORBENT POWER OF THE SKIN.—M. C. KOPP, in the *Breslauer Artzl. Zeitschrift*, 1885, No. 6, considers the following propositions to be a résumé of facts found in reference to the absorbent power of the skin:

1. Pure water, or that containing dissolved matter, is not diffused through the intact epiderm.

Absorption is possible if the normal texture of the skin is destroyed, or if it be greatly macerated.

2. The same facts obtain in reference to alcohol and to alcoholic solutions.

3. There is slight absorption of atomized aqueous or alcoholic solutions, but in so slight a degree that it is of no practical importance.

4. Medicaments applied to the sound skin in the form of ointments, are not absorbed:

This is true of iodide of potassium, veratria, quinine, etc. On the contrary, salicylic acid in solution or in ointment is absorbed, because it possesses the power of rendering the epiderm permeable.

5. In the method of administering mercury by inunction, there is a mechanical penetration of exceedingly minute particles of the metal into the lacunæ of the epiderm, into the glands, and hair follicles. The theory of Voit as to the absorption of sublimated mercury is very probable.—*Gazette Hebdomadaire de Médecine et de Chirurgie*, August 28, 1885.

TEN THESES CONCERNING SPONDYLOLISTHESIS.—DR. LAMBL, on the data afforded by his investigations and studies during a period of thirty years, enunciates the following views as to the causation of spondylolisthesis.

1. For a correct understanding of the origin of spondylolisthesis, fœtal hydrorrhachis sacrolumbalis is not merely a plausible, but a necessary presumption.

2. Traces of hydrorrhachis are recognizable in all spondylolisthetic pelves, and hydrorrhachis is itself pathologically responsible for the deformity of the pelvis.

3. Attempt to deny the responsibility of hydrorrhachis in the production of the deformity, results in a two-fold evil: Excess of theoretical insufficiency, and defect of practical application.

4. Rejection of hydrorrhachis as a causal agent leads to the error of attributing the occurrence of spondylolisthesis to conditions with which it is entirely unrelated.

5. The expressions spondylo-schisis and spondylolysis, are not synonymous, and do not signify the same thing as olisthesis, and can neither be used interchangeably with one another, nor with "fractures" of the vertebræ, nor with attrition effects, similar to fractures, resulting from elongation and atrophy by pressure of the arch of the vertebra, without serious error of understanding.

6. The rudimentary cleft vertebra, which, thirty years ago was described and based upon two spondylolisthetic pelves, is of historical importance, even for the future, and nothing has been since brought forward to destroy its significance.

7. The so-called "retropression of the sacral basis," "hemiolisthesis," and "congenital olisthesis" were idle inventions, whose non-existence can be proven without special difficulty.

8. Fracture of the inter-articular portion of the fifth lumbar vertebra, and consequent olisthesis, up to the present time has not been recognized in a single case.

9. The explanation of the occurrence of spondyloptosis through a violent motion, or traumatic cause, rests upon a false basis, and insufficient knowledge of existing specimens.

10. The presumptive "fracture of the sacral articular process," as of etiological importance in the spondylolisthesis, is, mildly speaking, anatomical nonsense.—*Centralblatt für Gynäkologie*, June 6, 1885.

THE ABSORPTION AND ASSIMILATION OF ALIMENTARY SUBSTANCES.—HOFMEISTER, in the *Archiv für Experimental Pathologie*, 1885, Bd. xix. Hefte 1 und 2, by experimental investigation, has found:

1. That peptone does not exist in a free state in the circulation of the blood, but is found united with the cells.

2. In the adenoid tissue of the intestinal mucous membrane, notably in the Peyerian patches, abundant cellular proliferation occurs in well-nourished animals.

The number of cells in process of segmentation in the follicles and young cells of the efferent lymphatics is greater when alimentation is abundant.

3. As the lymphatic cells of the adenoid tissue are almost entirely composed of nuclear substance, it is necessary that the digested albumen be here transformed into this substance in order to be assimilated, and there thus takes place, in a very simple manner, the transformation of peptones and hemialbuminose into principles of the class of nucleines.

Hofmeister further concludes that the incessant formation of new lymphatic cellules constitutes the morphological expression of the chemical process of assimilation. —*Gazette Hebdomadaire de Médecine et de Chirurgie*, August 28, 1885.

A RARE CASE OF ENCYSTMENT OF A FOREIGN BODY IN THE IRIS.—E. BERGER, in the *Wiener Med. Blätter*, 1885, No. 6, reports the case of a peasant, in whose eye a small fragment of stone about one-twelfth of an inch in diameter was encysted, occupying a position in the iris about midway between the edge of the pupil and the corneo-scleral margin, and projecting into the anterior chamber of the eye. The fragment entered the

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eye twenty-five years previously while the patient was preparing a millstone, and caused at the time slight pain, which disappeared in a few days.

Excepting slight loss of acuity of vision in the injured eye, no unfavorable results have occurred.

A few days since, for the first time, slight ciliary injection with pain in the eye, was noticed, but the patient refused to permit the extraction of the fragment.—*Centralblatt für die med. Wissenschaften*, August 15, 1885.

BENZOATE OF SODA IN THE SUMMER DIARRHŒA OF CHILDREN.—DR. GUOSTA believes the diarrhœa occurring in infants in hot weather to be a zymotic disease due to the presence of a special microbe produced by defective diet, bad hygiene and excessive heat being predisposing causes.

The remedy he prescribes for the condition is benzoate of soda uncombined with any other remedy, if the affection is recent, in children of from six months to two years.

After the administration of a purgative, such as calomel or jalap, from sixty to ninety grains of benzoate of soda dissolved in about three ounces of water, administered in twenty-four hours, for two days. The third day a slight purgation with magnesia is followed by further administration of the benzoate of soda.

During treatment the child is rigidly dieted, and nourished simply upon lemonade and a few spoonfuls of wine. Milk and bouillon are proscribed, the child, however, being allowed to nurse four times in twenty-four hours.—*Journal de Médecine de Paris*, August 23, 1885.

THE BINIODIDE OF MERCURY COMBINED WITH THE IODIDE OF POTASSIUM AS AN ANTISEPTIC IN SURGERY.—DR. LOUIS VACHER, in the *Gazette Hebdomadaire de Médecine et de Chirurgie*, of September 4, 1885, recommends the combination of biniodide of mercury and iodide of potassium, by which is formed the iodohydrargyrate of the iodide of potassium, a valuable antiseptic, especially in ocular surgery. The salt is four or five times more active than the bichloride of mercury, and the proportion required for antiseptic purposes is only 1 to 12,000. A solution less concentrated is of doubtful efficacy, while in greater strength the preparation becomes irritating and progressively caustic, delaying cicatrization, producing inflammation, and finally causing vesication, especially upon the mucous membrane.

The preparation of the remedy is, according to Bouchardat, easily accomplished by mixing equal parts of the biniodide of mercury and the iodide of potassium, adding sufficient distilled water to dissolve and evaporating, the resulting yellow needle-like crystals being the iodohydrargyrate of the iodide of potassium.

THE TREATMENT OF CONTUSIONS OF THE PERINEUM.—MAURICE NOTTA, apropos of a number of observations on the treatment of grave contusions of the perineum—with resulting traumatism of the urethra—as the result of fall, recommends the following treatment as most likely to result successfully:

1. The immediate performance of a long and deep median perineal incision, so as to lay open at once the contused region.

2. If at the end of some hours, owing to the distention of the bladder the symptoms are urgent, on account of the inability of the patient to urinate, he should be catheterized, or hypogastric puncture should be performed in case the posterior portion of the urethra cannot be found.

3. If, on the contrary, perineal incision is followed by evacuation of the bladder, during the subsequent time the patient is under treatment, direct catheterization should be practised, or search for the posterior portion of the urethra be made through the wound.—*Gazette Médicale de Paris*, September 5, 1885.

UNCONTROLLABLE HICCOUGH.—M. LIÉGEOIS, in the *Rev. Méd. de l'Est*, records the case of a young woman who, during twenty-four days, was constantly affected with hiccough. The attack supervened upon a fit of nervous excitement, and was unaffected by treatment with bromide of soda, potash, and ether, although milk and bouillon taken by the patient were not vomited. M. Liégeois, who first saw the patient on the twenty-fourth day of the attack, prescribed strong doses of chloral hydrate and hyoscyamin. During sleep the attack ceased, to be renewed on waking. In a few days the intervals between the attacks became longer, and finally returned only when the patient was excited or swallowed food or drink. A few months subsequent an abscess formed in the right epigastric region, from which a needle one and one-fifth inches was extracted; and, examination being made, M. Liégeois succeeded in discovering and removing eight additional needles, all shorter than the first, with the result of entirely relieving the hiccough. The patient pretended entire ignorance as to how the needles were swallowed.—*L'Abeille Médicale*, September 17, 1885.

EARLY PUNCTURE IN ASCITES.—EWALD, in the *Berliner Klin. Wochenschrift*, No. 16, 1885, advocates the early performance of abdominal puncture in ascites. The objections hitherto advanced against the operation, such as the debilitating effects produced by the loss to the organism of organic principles, the rapid reproduction of the fluid, fear of collapse, and peritonitis, are insignificant as compared with the advantages of early puncture.

By this operation, Ewald holds that collateral circulation is rendered easier, pressure upon the great abdominal glands, as well as that upon the heart, lungs, and intestines, removed. As a result, the functions of these organs are more easily performed, and the assimilation necessary for the support of the economy thus more readily accomplished. In addition, the use of drastic cathartics is also avoided to a greater or less extent, and their consequent evil effect upon the functional activity of the stomach and intestines.

To avoid wounding the intestines in those cases where only a moderate amount of fluid is present, a blunt-pointed trocar may be used, such as the one contrived by Ponfick for peritoneal transfusion.

The operation, Ewald further maintains, does not, as was formerly asserted, shorten the life of the patient, but acts as a palliative measure in those cases in which curative results are impossible.—*Centralbl. für Chirurgie*, August 16, 1885.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL

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SATURDAY, OCTOBER 3, 1885.

HEALTH STATISTICS OF WOMEN COLLEGE GRADUATES.

ANY effort to give material proof that the higher education of women is attained without injury to either physical or moral health will surely be welcomed. "A Report of a Special Committee of the Association of Collegiate Alumnæ" contains the most reliable mass of facts ever brought together before bearing on this important subject.

The work of the Committee appears at a very favorable time. We are having a reaction from the agitation that the book of Dr. Clarke excited; and not only educators, but, what is of even greater importance, the mass of intelligent people are beginning to take a rational view of woman's education and training for important and active positions in life. It never, to us, seemed reasonable to fear injury to the health of women for them to do those things that lie in the direction of the least resistance, and surely we may say that to pursue higher education into adult life in which congenial occupation, and mature judgment, and reasonable self-government are combined, is a safe direction for women to exert themselves in. The popular fear expressed in the controversy waged under the term "sex and education" was aimed at modern methods in the more primary stages of education, and not at higher culture and technical training.

The study of the subject in the report of the Committee is quite elaborate, and makes sufficient account of attendant conditions and individuality to give the tables scientific value. Thus, we have conditions of childhood, college conditions, and conditions since graduation, all tabulated with exactness and fairness.

It is a pleasure to note the entire absence of the special pleading which has characterized so much of the literature of this subject. On entering college twenty per cent. were below the standard of health, which was reduced to seventeen per cent. on leaving college. There are no figures, that we are aware of, to compare with this except the elaborate statistics of Neison in his work on Friendly Societies, but there is such a wide difference in conditions that their comparative value is greatly impaired. Making allowance for this difference, the ratio of good health is greatly in favor of college life for women.

Relating to more specific conditions, we find that nearly thirty-four per cent. abstained from physical exercise while at college during menstruation, which is largely in excess of women in domestic life; ten per cent. avoided physical and mental exercise at that time, which equals the disability of women in general. Of the 417 instances of disorder, we have but space to note that 112 were of the generative organs, and 137 of the nervous system, while we have but 30 instances of disorders of the brain, and 12 of the eye.

The report touches incidentally upon a subject that, from the point of view of the sociologist, is more important than a matter of individual health. The women upon whom the returns are made show a marked disinclination to marry; and those who are married have an average of but two children to a family. One thing is clear, the women of higher education will not be the mothers of a future aristocracy of intellect. This was predicted more than twelve years ago in an article on woman's relations to the professions, in the *Popular Science Monthly*. Occupation and inclination may tend to this result; but one element of their lives is so absolutely productive of it, that women of higher education and technical training will never be exempt from its operation. They are still occupied with educational work at an age when women who have selected other conditions in life are married, and are mothers.

It has been the dream of some of those who have given heartfelt work to the cause of woman's higher education, that heredity would play an important part in the future in determining through this agency, to the development of a cultured race; but a race, cultured from heredity, will emerge from the environment which has always surrounded it—a gentle, graceful home. Listen to what a talented woman has to say upon women in a relation that touches this subject very closely. Mrs. Oliphant, in her last novel, says: "Let us talk as we will of highly educated women, and of mental equality, and a great many other fine things; but, as a matter of fact, this gentle auditor and sympathizer, intelligent enough to understand without taking much part, is a more largely accepted symbol of what the woman

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ought to be than thing more prominent and individual."

We do not make the quotation to disparage woman's efforts to obtain a wider horizon than the fireside or the workshop, but rather to emphasize the fact that while she may preserve her health, and even improve physically under her intellectual training, as the report of the Committee proves, her enlarged moral skyline does not confer any enlarged powers as a social factor. And she gains this at an expense to an element in her nature, the existence and gratification of which are as healthful, actively and potentially, as the functions of circulation and innervation. And yet, in this endeavor, she is the noblest example produced in a form of civilization that is becoming overtrained, and more artificial in every effort that is made to force its human product up the incline to that doubtful altitude called a higher plane. The toil is as hard, the doubt and disappointment as bitter, while the reward, by an unjust discrimination, falls much short of that measured out to her educated brothers. But if this were all, if there were not always before her, dim and undefined like a shadow, an underlying element of her nature, too sacred for words, but not too stern for tears and sighs, that makes its demands in vain, then might we say, that woman in her heroic effort for higher intellectual training and work, has not taken up a burden that for many will be, indeed, hard to bear. None knows this so well as woman herself. She is a creature alive to her emotions and reads them correctly; and knowing all this she takes up the burden of her higher culture with no doubtful or unsteady hand.

FLOATING LIVER.

LANDAU, to whom we are indebted for a most exhaustive monograph on the subject of floating kidney, has issued a companion brochure on the floating liver as associated with the pendulous belly of women. The existence of this condition has been regarded by good observers as doubtful. This was the conclusion arrived at, only a few years ago, by Wickham Legg after a review of the literature of the subject, comprising twenty cases. Landau has now collected thirty-one cases, to which he has added sixteen from his own practice. Of the published cases very many, as shown by Legg, are open to suspicion, and in some the diagnosis has been proved by autopsy to be erroneous. Suspended so closely to the diaphragm by firm ligaments, the anatomical relations of the organ seem most unfavorable to dislocation; indirectly, too, the liver is supported by the intestines filled with gas and liquid, and by the abdominal wall. The tension of the air in the lungs also aids in the suspension. In normal conditions the liver is very slightly, if at all, movable; but in pathological states it may become ante- or retroverted, or dislocated downward.

The chief cause of mobility of the organ is an absolute increase in the abdominal space, such as follows repeated pregnancies, ascites, and the removal of tumors. It is associated always with pendulous belly, and may exist in various grades. As the extent of motion is limited by the attachment posteriorly at the inferior cava, and anteriorly by the attachment to the navel, the terms dislocated and displaced seem more appropriate than floating. The author thinks that in a large proportion of all cases of pendulous belly some degree of dislocation occurs. The diagnosis does not offer serious difficulties, and though many unpleasant symptoms may occur, the persistence of the condition is not dangerous. The treatnent must be directed to the state of the abdomen, and, by proper measures of support, entire relief, if not a cure, may be effected.

PROSTATECTOMY AND PROSTATOTOMY FOR ISCHURIA.

IN the *Lancet* for July 11, 1885, may be found the details of a case of ischuria from enlargement of the median portion of the prostate, in which MR. EDWARDS afforded complete relief by punching out a portion of the obstructing outgrowth with the prostatectome of Gouley, which is a modification of the exciseur of Mercier. The operation was executed in ten minutes; there was very little bleeding; and the urine was ejected forcibly and in a good stream on the sixth day.

The operation of Mercier, despite the fact, as we are informed by Dr. Gouley, in the *Lancet* for July 17, 1880, that its originator performed it upwards of four hundred times, with excellent success, and without the occurrence of abundant, much less fatal, hemorrhage, has never been looked upon with confidence. With the exception of Reliquet and several other surgeons in France, Teevan and Edwards in England, and Gouley in this country, it appears to be without supporters. To be sure, the objections which have been urged against it are purely theoretical, and not based upon the personal experience and observations of those who condemn it. At the meeting of the American Surgical Association, held in Washington last April, Gouley, who alone in this country has any practical knowledge of the procedure, praised it so warmly that it was difficult to understand why it had not been generally adopted. From his remarks, we ourselves reached the conclusion that it is justified when the retention is complete, and when there is great difficulty or impossibility of passing the catheter, especially if the outgrowth is small. Should further experience conclusively demonstrate good results, surgeons will doubtless practise it before the patient has to resort to the habitual use of the catheter.

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Should prostatectomy be looked upon with disfavor, the barrier to micturition may be overcome by internal prostatotomy with the thermo-electric cautery, or by external prostatotomy with the bistoury, as has been successfully demonstrated by Bottini, of Pavia, and Harrison, of Liverpool.

The cases of Bottini, which are recorded in the *Centralblatt für Chirurgie*, No. 28, 1885, are replete with interest. In the first, that of a man sixty-eight years of age, the cautery was held in contact with the median outgrowth for forty-five seconds. A soft catheter was retained in the bladder for four days, when it was removed, and the bladder emptied every six hours; the first spontaneous emission of urine took place on the twenty-second day; and at the end of three months the patient was in robust health; micturition was normal, and the urine was clear and acid. In the second case, that of Dr. Musatti, described by himself, the catheter was withdrawn on the fifth day; there was some scalding on the first two occasions when the bladder was emptied; the patient left his bed two days later; and Béniqué's sounds were subsequently passed until No. 44 was reached. The final result was great improvement in the general health, with micturition every five or six hours. Musatti declares that the operation was less painful than cauterization of the prostatic urethra with nitrate of silver, and recommends that it be performed without an anæsthetic agent.

Cases such as these, showing as they do the complete restoration of the power of micturition in a short time by a bloodless and comparatively painless operation, which, moreover, is not followed by febrile symptoms, certainly entitle thermo-galvanic prostatotomy to a careful and extended test.

The objection to this procedure (but it is purely theoretical), is that the relief may not be permanent, from the fact that cicatricial tissue the result of a burn oftentimes exhibits a great tendency to undergo undue contraction. Hence, in such cases, we should deem it wise to keep the part fully dilated by the methodical passage of large steel bougies during the remainder of life.

In the operation of Harrison, the membranous urethra is opened by a median perineal incision; the obstructing portion of the gland is then divided, partly with a straight probe-pointed knife, and partly by divulsion with the finger or a large-sized bougie, until the access to the bladder is felt to be free; and the edges of the wound are kept apart by a gum-elastic tube, through which a smaller tube is passed to conduct off the urine. The tube is retained for a number of weeks, or until a catheter can be made to enter the bladder easily along the natural route; and, on its withdrawal, the use of a large bougie is continued until the perineal wound has soundly closed, and afterwards it is passed occasionally as a precautionary measure.

In a paper read at the International Medical Congress at Copenhagen, Harrison narrated a case in which he had performed the operation above described. It was one of atonied bladder and ischuria from a nipple-like projection of the median portion of the prostate, in an old man of very childish habits, who could not be made to retain a catheter. The patient was able to go about in ten days, when the cystitis had disappeared, and the urine was discharged at will by turning the tap connected with the drainage apparatus, which was worn for eight weeks. After the closure of the perineal wound, he could retain urine for four hours, the bladder acquired its natural power of expulsion, and there was no residual urine. At the expiration of six months, the man had a paralytic seizure, but it was not found necessary to resort to catheterism.

It will thus be seen that the result was most gratifying, although a more unfavorable case could scarcely have been subjected to operation. The advantages of this over the procedures of Mercier and Bottini are that the nature of the obstruction can be accurately determined through the perineal wound, and that the division of the obstruction can be made with a degree of certainty and precision which cannot be attained with the prostatectome or the galvanic cautery.

A careful perusal of the cases to which we have directed attention must convince the impartial surgeon that the operative treatment of median prostatic hypertrophy when it does not yield to catheterism has been too much neglected. We regard this as a great and comparatively new field of operative surgery, and we trust that our remarks may have the effect of awaking attention to the subject, and of inducing surgeons to give these operations a fair trial.

PHOSPHORUS IN RACHITIS.

THE remarkable results obtained by KASSOWITZ have induced a widespread trial of this remedy in rickets, and recent German journals contain several important articles upon the subjeet.

HRYNTSCHAK, in twenty-four carefully studied cases, has seen very little good from its use : only five cases were benefited. SOLTMANN, in sixty hospital and ten private cases, found an early improvement in nutrition and muscular strength, which he attributes to a general stimulation of the tissue changes, and not to any specific action of the drug on the bones. He has never seen enteritis follow its use; on the contrary, the gastric and intestinal symptoms disappear, and as do also the nervous symptoms and the bronchial catarrh. HEUBNER is of the same opinion, and doubts if there is any special action on the bones and teeth.

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MONTI holds that the diverse views which prevail on the value of phosphorus result from different interpretations of the phenomena. Those who, like Kassowitz, record prompt and satisfactory action of the drug base their opinion on the improvement of certain symptoms—the healing of the craniotabes, the ossification of the sutures, and the cessation of the laryngismus, etc.; but it is well known that the individual symptoms may disappear while the disease itself continues, or even progresses rapidly in other parts. We can speak of a cure only when the circumference of the head and thorax, and the length and weight of the body, become normal. When the rate of development and the general condition of the children are included in the circle of observation, we find the drug practically useless. EISENSCHITZ, on the contrary, believes, with Kassowitz, that phosphorus has a specific effect in counteracting the injurious agencies which impair the nutrition of the ossifying cartilages.

While, then, the general experience does not seem at all favorable to this plan of treatment, it is only fair to note that the number of cases (1224) treated by Kassowitz was very large, while the opposing results have been obtained from a much smaller series of cases, and we must await further observations before we can decide positively upon the value of the drug in this disease.

THE MEETING OF THE AMERICAN GYNECOLOGICAL SOCIETY.

THE last meeting of the American Gynecological Society was well attended, both by members and by visitors, and its work quite creditable. It presented a striking contrast with the previous meeting at Chicago in at least two respects: First, having a quorum it transacted the business belonging to it. Second, all papers whose authors were present—only two of thirteen gentlemen whose names were on the programme being absent—were read, none of them being crowded out by discussions of other papers protracted beyond their allotted time. The Society ought to be careful not to repeat the injustice which has been done in denying a member, who comes with a carefully prepared paper, the right of reading it because others have occupied so much time in extemporaneous talk. Every medical society has men who are heard not only for their much speaking, but for their many speeches—they are equally at home on every subject, and are always ready to present their views freely and fully. Unfortunately, valuable as their speeches may be, the society hears them at the expense, sometimes, of papers announced on the programme, which are finally read by title, a sort of reading very much like neglectful, if not contemptuous, silence, which may cause heartburnings, if not permanent alienation.

Another feature of the Washington meeting was the marked absence of western members, only two being present; this ought not to have been so, but as each of the western gentlemen present was honored with an important office, the Society plainly showed how highly it esteemed them.

The papers read were, as a rule, brief, clear, and pertinent. Long papers read before a medical society are usually big blunders, and they are more apt to weary and confuse than to interest and instruct. Indeed, we think it would be wise to limit all papers to thirty or forty minutes; few men can safely, so far as clear information and a favorable impression are concerned, transgress the latter time unless a varietyof topics is discussed.

The retirement of Dr. Foster from the secretaryship is to be regretted, though his place is to be occupied by so excellent a successor as Dr. Taber Johnson.

The Society, in its ten years, has accomplished much; its financial condition is good; its continued usefulness and increasing honor are certain.

SOCIETY PROCEEDINGS.

RHODE ISLAND MEDICAL SOCIETY.

Quarterly Meeting, held at Providence. September 17, 1885.

(Specially reported for THE MEDICAL NEWS.)

THE PRESIDENT, DR. O. C. WIGGIN, IN THE CHAIR.

DR. E. T. CASWELL submitted the draft of an

AMENDMENT TO THE BY-LAWS

of the Society, designed to elevate the standard of admission to fellowship, by the following provisions: 1. The Board of Censors on receiving the application for admission of any person as a Fellow of this Society, and after duly examining his diploma, provided it emanated from some medical college of known and acknowledged respectability, and satisfying themselves that he does not profess or intend to practise any exclusive system of medicine, shall refer the candidate to the *Board of Examiners*, and on the receipt of a favorable report of the examination passed, shall recommend him for election. 2. Examinations for admission to this Society shall be conducted by a board of five members to be appointed by the President at the annual meeting. Each year the senior, by appointment, shall drop out, and his successor shall be appointed for five years. The senior, by appointment, shall be the President of the Board. 3. Examinations shall be held in the month of April of each year at such time and place as may be convenient to the members of the Board, and shall embrace the usual branches of medical science taught in recognized medical colleges. The candidate will be required to show that he has an adequate knowledge of the Latin language and has received a good English education. 4. The Board will examine only such candidates as have been referred to them by the Board of

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Censors, and will report to the Censors the resul o the examination during the first week in May.

The amendment was unanimously adopted.

DR. HERBERT TERRY, of Providence, read a paper on the

PREVENTION OF LACERATION OF THE PERINEUM.

Several noted authorities were quoted on the cause of this laceration. Dr. McCaw, of Providence, had suggested the theory that it might be caused by contraction of the perineal muscles brought on by the pain from distention.

The writer thought that in his own cases the accident had occurred oftenest during the passage of the shoulders, but perhaps as often just at the last moment when the perineum was distended over the lower part of the face. It had also seemed more frequent in case the head was considerably elongated. His conclusion was that laceration is not so often due merely to distention, but to the shape of and direction taken by the distending part.

Dr. Terry explained as follows: "When the progress of the head is stopped by the nape of the neck catching under the arch of the pubes, further pains act upon the head as upon a lever of the third class with the fulcrum at the occiput. The face does not emerge, as the occiput, in a direction perpendicular to the plane of the vaginal orifice. It hooks up the perineum, as it were, from behind and presses upon it, not evenly over its whole surface, as did the round occiput, but over a limited area and in a direction more nearly perpendicular to the surface of the perineum. The more elongated the head the more evident does this lever-like action become. The same conditions hold true in the passage of the perineal shoulder. The narrow presenting part has often seemed to come directly through the perineum without distending it too near its maximum. I am convinced that the parts often begin to tear along the vaginal wall. In one case the rent was distinctly felt after the head had receded and the perineum had contracted." For the prevention of laceration, the writer mentioned the use of lubricants when the parts had become stiff and dry in protracted cases, and also repressing the head during a pain by means of the fingers of the left hand carried over the side and between the legs, while, during the interval, the head is slowly urged forward by one or two fingers of the right hand acting through the recto-vaginal wall.

The writer then said, "acting upon the idea spoken of above, that the lacerations often occurred from the shape and direction of the presenting part, I have used in the last three cases of primiparæ that I have attended, an appliance made for me at one of the rubber stores. It consists of a piece of steel three-quarters of an inch wide and eight and one-quarter inches long, embedded between two strips of soft rubber, vulcanized together, and projecting in every direction three-quarters of an inch beyond the edge of the piece of steel. This makes a plate nine and three-quarters inches long, two and one-quarter inches wide, and a little less than one-sixteenth of an inch in thickness. It is perfectly flexible, and cannot injure the soft parts of the mother, while the steel shank gives sufficient firmness to the centre to distribute the pressure more evenly over the perineum. It does not interfere perceptibly with the relaxation of the parts by dilatation of the anal orifice, nor does it seem to retard the passage of the child."

Two of the three cases in which the appliance had been tried were said not to be test cases. The remaining case was described as follows: "The perineum I found was one which you will recognize as prone to tear—short, thick, rigid, and apparently set back from the other parts of the vulva. During the course of the labor the head became wedged, apparently between the two tuberosities of the ischia, and it was quite difficult to introduce the forceps through the vulva. After the head had been brought down so as slightly to distend the perineum, the instrument described was well oiled and slipped in between it and the head. The forceps were removed and the head was born after a few pains. During the pains the head was repressed as much as possible, while during the intervals it was carefully and gradually pushed forward by two fingers in the rectum. The orbits, mouth, and eventually the chin were felt through the soft rubber and recto-vaginal wall and were successively acted upon. Upon the birth of the child, the parts did not, as usual, contract forcibly around the child's neck and in front of the shoulders, but were already somewhat distended by the elasticity of the steel shank and the pressure was distributed over the whole, instead of being limited to the portion well back in contact with the point of the shoulder.

"In cases where the head is born last, the body of the child can be carried well forward, and the mouth brought to the vulva, so that air may be obtained, and then plenty of time taken in the delivery of the head. When rapid delivery is necessary, drawing the perineum forward, as recommended by Dr. Goodell, or carrying it forward by Playfair's method will, probably, lessen the degree of laceration. In other positions of the head than occiput anterior, a long diameter is presented at the vulva, and rupture is likely to occur from mere distention. Deliberation in this delivery is of the greatest importance, and a liberal supply of ether or chloroform will reduce the risks of laceration. In the use of forceps it is rarely necessary more than fairly to distend the perineum before removing them; and it seems to me that the risks of laceration are much increased by not doing so. Very many consider, however, that the head may be delivered with forceps with greater safety to the perineum, because the head is held well forward under the arch of the pubis."

DR. D. H. BATCHELDER said he did not believe much in the efficacy of supporting the perineum. It had for many years been his practice, in case of an unyielding perineum, to inject per rectum, gr. ½ or 1 of antimony in tincture of lobelia and starch water, which will cause the parts to yield in twelve or fifteen minutes. Out of 3780 obstetrical cases, he had encountered only 4 cases of ruptured perineum. He thought much trouble in this direction came from the too early use of ergot or the forceps.

DR. CALDWELL reported

A CASE OF LITHOLAPAXY.

The man was sixty-four years old, and had had symptoms of stone for two years. The fragments weighed 160 grains. Time of operation one hour. The man sat up at the end of a week, and resumed business one week later.

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DR. WILLIAM H. PALMER showed a specimen of

OSSIFIED OVARY.

Its length was $1\frac{3}{4}$ inches; breadth, $1\frac{2}{5}$ inches; weight, 278 grains. It was removed from the body of a woman aged thirty-five, who died suddenly of heart failure, caused by fright at the breaking of a lamp chimney near her bed, two weeks after her first confinement, from which she had seemed to be recovering well. In the specimen ossification was complete, the whole organ being as dense and hard as bone from any part of the body.

DR. G. D. HERSEY read an excellent paper on the

AFTER-TREATMENT OF TRACHEOTOMY.

The scope of the paper did not include cases where the operation was done on account of foreign bodies, or constriction due to growths, etc., but only cases of fibro-membranous disease, and the more accurate title would be "the treatment of tracheal diphtheria after an opening has afforded access to the lower tracheal region."

Immediately after the operation hypodermatic injections of brandy are usually indicated. The patient should be in a large airy room, warmed by an open fire or a base-burner coal stove; all cooking or other work that might cause irritating qualities in the air should be prohibited near the sick room.

From the poisonous nature of the disease, stimulants and forced feeding must be largely relied on. Brandy and milk must be given freely as soon as the patient recovers from the anæsthetic, and rectal feeding employed if indicated. After a few hours remove the inner tube and clean it with a whalebone swab or some instrument flexible and yet firm. "Whenever symptoms of obstruction occur, untie the tapes and remove both tubes, thus gaining free access to the trachea, and try to remove the rattling mucus with the whalebone swab or spongeholder." If there is tough, stringy, muco-pus, and membrane which is too firmly attached to the trachea to be separated by the swab, try the curved forceps. These measures will probably suffice for the first twenty-four hours. But as the disease progresses, more and tougher membrane is formed, filling the trachea and blocking up the lower end of the canula. The child has a violent, strangling cough, and, starting up to a sitting posture, vainly attempts to expel the tough membrane through the canula, and sinks back exhausted. Again and again Nature thus tries to relieve the obstruction, mutely imploring the surgeon's help. Passive œdema of the lungs will soon follow such violent efforts at respiration, and coarse râles can be heard over both lungs.

It is because this condition may come on soon after the operation, and at any time for three or four days afterward, that the medical attendant or a competent trained nurse ought to remain constantly with the patient for four or five days and nights following tracheotomy. Death will surely follow a few of these strangling scenes unless prompt relief is afforded, and, happily, the relief is generally possible. First, steam is the best sedative to this excessive broncho-tracheal irritation. If the room is heated by steam, the pipe may be tapped and steam conveyed by a rubber tube to the bedside. The steam atomizers and portable boilers often recommended, are worthless. They frighten young patients, and are wholly inadequate for producing the large volume of steam required.

An efficient apparatus may be extemporized as follows: Build a tent of sheets over the bed or crib, and let the tent reach to the floor so that the steam will not escape. Under the sheet and beside the bed place a wooden water pail containing three or four pounds of unslaked lime in lumps, and add a gallon of boiling water, stir well, and the tent will soon be filled with a dense volume of steam at a temperature of about 90° F. This hot, moist atmosphere is very grateful to the patient. After five minutes steaming, or longer, if the breathing and cough continue dry and harsh, remove the tracheotomy tube. Through the opening the surgeon may pass a dull copper curette and thoroughly scrape the mucous surface of the trachea down to its bifurcation. By going carefully around the entire circumference of the windpipe, and even into the bronchi if necessary, he will scrape off and out of the trachea an abundance of tough, fetid membrane, which he must be prepared to catch the instant it appears at the mouth of the wound, or it will be sucked back with the next inspiration. The tubes may then be cleaned, carbolized, and replaced. The child is relieved, tries to whisper that he wants a drink, and breathes quite freely for a few hours. Then the wheezing, rapid respiration comes on gradually, and the terrible strangling scene is repeated, to be relieved by the same measures as before. This struggle may go on every four to six hours for five days before the tough membrane gives way to a catarrhal secretion. Various complications may arise. After two or three days the epiglottis, from disease or disuse, fails to shield the larynx, and milk runs down the trachea, setting up violent coughing, and oozing out around and through the canula. At this time it is better to feed wholly by rectal injections. Or the canula may press against the œsophagus, causing obstinate vomiting and requiring the removal of the tube for a few days. Capillary bronchitis or pneumonia may occur, though not usual during the first three or four days. The usual treatment should be employed.

The greatest care must be taken to secure absolute cleanliness of the patient, his neck and wound, the tubes and tapes, the night dress and bedding. In no surgical procedure is a faithful, skilful nurse more necessary than here. Milk, alcohol, ammonia, digitalis, and iron are the sheet-anchors in this disease, and must be pushed to the utmost tolerance of the patient. Digitalis is needed essecially, because the labored respiration taxes the heart severely. Bromide of sodium or spts. lavand. and ether will often be needed to allay nervous restlessness.

Diphtheria of the wound is a complication that sometimes occurs, and is treated by frequent removal of the tube, and cleanliness. Dusting powders are not applicable to the wound, but iodoform or alum, mixed with glycerine, may be painted over an unhealthy surface, and dilute tincture of iodine can always be brushed lightly over the edges of an advancing inflammation. Sucking the wound with the surgeon's lips to remove false membrane is generally more foolhardy than necessary. Steam, the dull wire curette, the curved forceps, and the flexible whalebone sponge holder are adequate to relieve even the most desperate cases.

The writer then described two cases in point.

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Case I.—I was called hastily on the third day after the operation, and found the boy (six years old and delicate) exhausted by a recent struggle, lying back on his pillow unconscious, pulseless, making occasional shallow efforts at breathing, and rapidly dying from asphyxia. I injected three or four ounces of brandy hypodermatically, removed the tube, and, with the curette, pulled out several pieces of tough membrane, which, partially dried, had occluded the trachea, and plugged the lower mouth of the canula. More membrane was got out, and half an hour later the moribund boy, resuscitated, drank a glass of milk, and slept quietly.

Case II.—A five year old boy had diphtheritic croup, for which a surgeon performed tracheotomy. He did fairly well for three or four days, and then the trachea and bronchi filled up with membrane and tough secretion which the patient could not expel, and which gradually made respiration impossible. The two attending physicians gave up the case as hopeless, removed the tube as the patient was dying, and gave ether merely for the sake of euthanasia. I was sent for after both the other physicians had left the house, and found the body laid out on a table as dead. The only sign of life was a slight, convulsive gasp about every ten seconds. The boy was speedily put into hot blankets, the tent was thrown over his crib and filled with hot steam, and brandy given freely by hypodermatic injection. Resuscitation was slow, but the heart responded to the stimulus of alcohol in the circulation, the steam softened the dried, tenacious exudate, and the curette cleared a passage to the lungs. Helped by prolonged steaming, our reviving patient coughed up considerable membrane and stringy mucus, and, in about two hours, sat up and drank some milk punch. His convalescence was interrupted by an attack of pneumonia, but he made a good recovery. I am sure that neither of these two lives would have been saved without the use of the curette. The membrane, especially that attached near the wound, becomes dried and tough, and chokes the middle and lower trachea, clinging more and more tenaciously on the second, third, and fourth days after the operation, while the diminishing strength of the patient makes him less and less able to expel it. The curette clears out this obstruction more effectually than any other instrument, and I have never seen its use cause pain, or hemorrhage, or strangling.

A vote of thanks was tendered Dr. Hersey for his valuable paper, and the meeting then adjourned.

CANADA MEDICAL ASSOCIATION.

Eighteenth Annual Meeting, held at Chatham, September 2 and 3, 1885.

THE PRESIDENT, WILLIAM OSLER, M.D., IN THE CHAIR.

(Specially reported for THE MEDICAL NEWS.)

MEDICAL SECTION.

WEDNESDAY, SEPTEMBER 2D.—FIRST DAY.

DR. GRANT, of Ottawa, read the report of a case of

ANEURISM OF THE AORTA.

The patient was an old soldier who had suffered from thoracic pain and other symptoms. The disease was readily diagnosticated, and he was under observation for a long time, during the greater part of which he was able to do light work. A large projecting tumor was watched, bulging the sternum and costal cartilages, and ending by eroding these and forcing itself forwards as a mass as large as two fists. He finally died from cerebral embolism.

DR. GEO. ROSS remarked upon the fact that this man had lived a long time—nearly five years—from the onset of symptoms. In the treatment of the case moderate exercise had always been allowed. Dr. Ross believes strongly in insisting upon complete rest for a sufficient length of time, although the present example shows that this is not always necessary to secure a remarkable degree of longevity. The reason here for the long time the man lived was plainly that the aneurism grew from the front of the aorta and pushed forwards, thus avoiding the important centrally situated structures. Dr. Ross inquired whether the physical sign of "tracheal tugging" had been observed. Dr. Grant said it had not been looked for. And in answer to a member, Dr. Ross explained the method of examination to detect "tracheal tugging," and said that he considered the sign one of great value in the diagnosis of aortic aneurism. If present, it seemed to be almost pathognomonic, for he had examined for it in a great number of hospital patients, and had never found it distinctly marked in anyone who was not the subject of this disease. It is quite true, however, that it is absent in many cases of aneurism, for the conditions necessary for its production are, that the tumor bear against the trachea or a large bronchus, and, secondly, that it be not completely solidified.

DR. SHEARD spoke of a case recently under his care. The tumor sprang from the first part of the arch, and the symptom most marked was dyspnœa in severe paroxysms from spasm within the larynx. Prolonged rest appeared to have had a very beneficial effect; this was strictly enforced for three months. Dr. Sheard had used potass. iodid. in pretty full doses, but its employment was always followed by marked depression and lowering of the pulse—so much so that it had to be discontinued. He thought this action of the drug unusual. Dr. Sheard also gave the particulars of a case of aneurism in the descending thoracic aorta which produced plugging of all the great vessels beyond its point of origin.

DR. OSLER remarked upon the importance of considering the question of prognosis in these cases. Dr. Grant's case, for instance, had lived five years and a half, and he had known men with large tumors to live ten years and more. On the other hand, a small aneurism may quickly burst and prove fatal; so much depends upon the location of the growth—those growing anteriorly may attain large dimensions before producing symptoms, and even then life may be prolonged, whilst a small tumor centrally situated generally soon makes its presence known, and is apt to kill within a short time. Those growing from the transverse arch and backwards are likely to produce early symptoms, and quite frequently early death. Those, again, involving the descending part of the arch may last very long. He would also in this case notice the coexistence of disease of the aortic valves, which was by no means common. The absence of any marked degree of hypertrophy of the ventricle was in accordance with what is generally

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seen. As regards iodide of potassium, he was satisfied of its great power in relieving the pain so frequently present, but has great doubts as to its assisting in the consolidation of the tumor.

DR. WILKINS spoke of the necessity for limiting the amount of fluid to be allowed to these patients, and alluded to a case of his own in which this principle had been acted upon, and where the man had lived between four and five years.

He would advise reducing the allowance to half a pint *per diem*. He thinks that the necessary result of free imbibition of fluids is distention of the sac for the time being, a condition, of course, unfavorable to cure. In the case alluded to, the "tracheal tugging" had been a marked sign, and the patient died from rupture into the trachea.

DR. ECCLES alluded to a case where he had been obliged to omit the use of iodide of potassium on account of its always rendering the pulse very small and frequent.

DR. WORTHINGTON then reported some cases of

EPIDEMIC CEREBRO-SPINAL MENINGITIS.

He remarked that though the cases he related were indicative of a cerebro-spinal fever, and seemed identical with the so-called epidemic form, they were not sufficiently numerous to show that the disease was extensively prevalent. The notes were then read *in extenso*. The first showed a markedly intermittent type, and it was thought that here, as according to Dr. Radcliffe sometimes occurs, the specific disease was complicated with ague. The other cases were characterized by rapid onset, rigors, headache, rachialgia, convulsions, spasms, and delirium, and later on, somnolence and diplopia. They presented a considerable degree of similarity. The treatment consisted in mercury and iodide of potassium, with application of cold. In later stages, quinine and stimulants.

DR. HARRISON said that it was somewhat remarkable how this disease showed itself in certain restricted localities. He had had six cases, and Dr. Stark, in his neighborhood, seven, four of which had proved fatal.

DR. OSLER said that in the absence of *post-mortem* records it was impossible to be certain of the diagnoses. The cases he had met with in cities and elsewhere were all *sporadic*. Those which he had examined autopsically he found to belong to one of two classes, (*a*) simple, and (*b*) tubercular. The former were rare; the latter were distinguished by a more prolonged course, and by being sometimes actually latent. He had recently had charge of a sailor, who having fallen heavily upon the deck of his ship, soon after developed spinal symptoms which were supposed to be due to the injury. The autopsy, however, showed tuberculization of the spinal and cerebral meninges, almost certainly of pretty long duration. The specific fevers also not unfrequently simulate cerebro-spinal fever, especially the malignant form of smallpox and of typhoid fever. The symptoms in all these cases are almost, if not absolutely, identical, and an autopsy alone can set a doubtful case at rest.

DR. TESKEY related a case of tubercular trouble he had lately had which might during life have readily passed for one of cerebro-spinal fever. It began with convulsions, followed by opisthotonos and then coma. The necropsy showed tubercular meningitis complicated by an abscess in the occipital lobe of the brain.

DR. MACDONALD, of Hamilton, spoke also of the necessity for *post mortems*, and deplored the tendency amongst country people to object to this proceeding. During epidemics of cerebro-spinal fever in Hamilton he had a number of autopsies. Whenever the diagnosis proved correct he had found distinct evidences of inflammation of the cerebral and spinal meninges without any tubercle. In several cases the negative conditions discovered pointed to some specific febrile poison as having caused the symptoms.

DR. ARNOTT, of London, Ont., read a paper on

THE SOURCES OF MALARIA.

The existence of malaria is very generally taken as equivalent to presupposing the existence in the same place of a certain germ. It is commonly accepted that one of the chief requisites for malaria is decomposing vegetable matter. The only circumstances required for this to take place, and, therefore, for the generation of malaria, are thought to be the presence of water, exposure to air, and a certain temperature. Dr. Arnott thinks that decomposing vegetable matter is *not* necessary, but that with water and the requisite degree of heat the germ of malaria will be propagated. He thinks, therefore, it is conceivable that this might take place even in distilled water. Many arguments were adduced in support of this view. In different districts the prevalence of ague is not at all proportionate to the amount of vegetable matter in a decaying state. One may find the latter in great abundance with hardly any intermittent, whilst *vice versa*, malaria may abound where decaying vegetable structures may be said not to exist, or to be very sparingly present. Loomis believes that malaria is proportionate chiefly to the heat and moisture without reference to the organic matters. The effect of drainage of land is well known. Phthisis and cholera will thrive under the same physical conditions as give rise to malaria. The writer again emphasizes the opinion that heat and moisture are really the only essentials required to propagate malaria independent of the presence or absence of organic matter.

DR. INGALLS, of Detroit, remarked upon the conditions present in that city. There, the parts built upon consist of a black organic mould, six or eight inches deep, underlaid by a heavy clay subsoil. The superficial drainage is very often defective, and moisture is retained beneath the houses for a long time. This gives rise to many diseases of a malarial type: true intermittent fever, phthisis, diphtheria. Sunlight probably plays but a small part. These malarial diseases prevail when the damp decaying vegetable loam lies under the houses, obtaining only the heat from the general atmosphere. Do we not often fail to recognize malaria in the causation of phthisis, overlooking altogether the miasmatic origin of the latter?

DR. TESKEY said, as regards the bacterial origin of malaria, the points chiefly urged in favor of the view were, that successful inoculations had been made upon animals; and that upon curing the disease with quinine the bacteria had disappeared. The natural history of bacteria in general bore upon the subject under discussion. To cultivate bacteria, heat, moisture, and some nitrogen-bearing substance are necessary. Some get it from the atmosphere, some from albuminous bodies (broth, etc.). Then, in almost every stream we

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should find spores and albuminoid bodies of some kind. When there is much vegetable matter there is generally much albuminoid matter. There is certainly much yet to be known of the natural history of these particular germs.

Dr. McCulley alluded to the persistence with which malarious affections stick to certain houses. There is always some one sick in them. Often, on examining such premises, one finds decaying timbers and low sills. In these places typhoid fever and diphtheria may alternate with the true malarial affections.

Dr. Baker, of Detroit, spoke of the system in vogue in the State of Michigan. The Board of Health receives reports regularly from one hundred physicians in different sections. On comparing these it is found that malaria prevails most when the fluctuations of temperature are greatest, therefore temperature alone seems to control intermittent fever. The difference between the day and night is greatest in summer—it increases as you go South. In the northern part of the State there is no ague. He would strongly urge their system of collecting facts bearing on this disease; it is the only way in which our knowledge can be helped on. He does not consider that the bacillus can yet be accepted as proven.

Dr. Harrison said that in old times in his part of the country, all the cases of pneumonia had a malarial tendency. Now this is not observed, and there is no ague there.

Dr. Stalher mentioned the occasional occurrence of severe attacks of ague during the greatest cold of winter, as opposed to the view that a certain temperature is necessary.

Dr. Ross held that to benefit by this discussion we must restrict it to that of malaria alone. Such affections as some had spoken of—phthisis, typhoid, and diphtheria—are all believed nowadays to be produced by special organisms, having a natural history of their own. In many places these prevail to a very considerable extent, whilst malaria is unknown. It is clear, therefore, that it is not right to quote their existence as indicative of a miasmatic or malarial, although, certainly, of unwholesome conditions.

Dr. Clark said that he had observed these facts in his neighborhood. Near Oakville there is neither phthisis nor malaria. In Oakville they both prevail. The temperature on the lake shore is low, whereas, two miles or so inland it is comparatively warm.

Dr. Arnott, replying, said that the recent views of Loomis quoted, showed that the current of general opinion is towards the view that the factor of decaying vegetable matter in the production of malaria is not an *essential* one. As regards occurrence of an attack of ague in midwinter, he thought that such cases are to be explained as showing the possibility of prolonged *latency* of the poison, the attack being induced by the depressing action of intense cold.

Dr. Holmes, of Chatham, read a paper entitled

OBSERVATIONS ON PUERPERAL MANIA.

The paper alluded first, in a general way, to the causes to which an attack of this kind may be attributed. They are chiefly heredity, anæmia, and moral influences. To these he would add another, viz., *laceration of the cervix uteri*. Some objections to admitting this would occur at once; such as, lacerations are very frequent, without the occurrence of mania, which is rare. Recovery from mania often takes place without a laceration's having been cured, and most lacerations heal of themselves, or, at any rate, without treatment, become covered with mucous membrane. Dr. Broca has taught that the central sympathetic nervous system governs man's moral nature. Abdominal disease commonly produces great depression, in marked contrast to the hopefulness of those with thoracic disease. The pregnant woman is really like dry fuel, waiting only the application of a match to burst into flame. *Case I.* Mania three days after confinement; put under restraint; moderate laceration of cervix; died insane after two years. *Case II.* No heredity. Easy labor; after five days melancholic and morose; after three months much worse; suicidal; a laceration which was discovered was treated, and the mania disappeared rapidly. *Case III.* Very violent; after two weeks was sane; remained despondent for two years; then laceration was found; restored to health. *Case IV.* Became insane twenty days after labor; extensive laceration; treated with hot water douches, etc., and a rapid cure effected. *Case V.* Was seen eight months after confinement; was weak, mind affected, melancholy; slight laceration treated; after four months this was entirely healed, and she was quite well. *Case VI.* Was in an asylum; after the cure of a bad laceration was well and went home. Twelve cases in all were presented, of which the above are fair specimens. Dr. Holmes concludes that laceration of the cervix is a frequent cause of puerperal mania, and one which has been hitherto overlooked. He thinks it is of much importance that there should be a gynecologist to every asylum for the insane, and that their investigations into this subject might throw much light upon the somewhat obscure etiology of this affection.

Thursday, September 3d.—Second Day.

The Section opened at 11.30 A.M., Dr. Harrison in the Chair.

Dr. J. E. Graham exhibited a specimen of

DISSECTING ANEURISM,

and related the history of the case. The patient had been a soldier in the British Army and was wounded in the trenches, and soon after was invalided and told to avoid exertion as he might die suddenly. Aneurism at the time was evidently suspected if not diagnosed. He recovered health sufficiently to enable him to earn his living, though never strong. He had been under Dr. Richardson's care in Toronto Jail on several occasions, and it was known that he was the subject of thoracic aneurism. A few days before his death there was hemorrhage from the lungs. The condition found post-mortem was as follows: The ascending and transverse portions of the arch were much distended, and immediately beyond the orifice of the left subclavian there was a saccular dilatation adherent to the lung, and at the upper part was a laceration into the tissue which communicated with the bronchial tubes. At the distal portion of the sac were two openings, one of which communicated with the natural lumen of the vessel and the other with the dissecting aneurism. This latter was formed by the blood finding its way through

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the middle coat of the vessel and dissecting the inner portion of the media from the outer half of the media and the outer coat. This was continued in almost the entire circumference of the vessel, and extended throughout the thoracic and abdominal portions to the bifurcation where by a large opening the dissecting aneurism again communicated with the lumen or the aorta. Some of the branches of the abdominal aorta communicated with the inner tube, others only with the outer dissecting aneurism. Among the remarkable features of the case are (1) the length of time which this has lasted, probably thirty years at least: the condition of the lining membrane of the dissecting aneurism shows it to have been long in existence—as it is smooth and firm almost like the normal lining membrane, only a little uneven. (2) The unusual extent of the aneurism, involving the entire length of the thoracic and abdominal portions.

DR. WILKINS presented a series of microscopical specimens illustrating

THE BACILLI OF TUBERCULOSIS,

and the fact of their communicability. The first of these were taken from the sputa of a patient suffering from chronic phthisis; the second from the lungs of the same person; the third from a rabbit, which had been inoculated with the tuberculous matter in the anterior chamber of the eye. In each case the bacilli were extremely well shown, and the demonstration was much appreciated by the Section. Dr. Wilkins read some notes descriptive of the experiments he had made on this subject, and pointed out how strikingly such observations exhibited the contagious character of tuberculous matter, and the association with it in every case of the characteristic bacilli which have been so fully described.

DR. J. E. GRAHAM said that he had been much interested in this very satisfactory and complete demonstration of the microörganisms of tuberculosis. It is a fact that some in the profession are still sceptical concerning these tubercle bacilli, whereas an examination of such specimens as these would carry conviction even to the mind of a layman without any special knowledge of the subject.

DR. JAMES STEWART read a paper on

THE CURABILITY OF THE CHRONIC FORM OF INFANTILE PARALYSIS (POLIOMYELITIS ANTERIOR CHRONICA).

The development of the paralysis had been slower and less febrile than in many instances observed, and had been preceded by diarrhœa. The patient was treated with galvanism, and made a good recovery. Dr. Stewart thinks that cases of this character are more amenable to treatment than those with more rapid and acutely febrile onsets. He advised persistent and careful treatment with galvanism, instead of consigning them, as is so often done, to the category of cases for which nothing can be done.

DR. HOLMES considered the case of value, as encouraging the general practitioner to persevere, in the hope of ultimately restoring limbs threatened with permanent paralysis. He inquired whether any other form of treatment in addition was serviceable; also what the reader's views were as to the pathology of the affection.

DR. STEWART, in reply, said that galvanism is the only thing to be relied upon. It is not definitely known whether the changes are primarily inflammatory or purely degenerative. As regards prognosis, it is important to separate the acute from the subacute and chronic cases.

DR. MCKEOUGH, of Chatham, read a paper on

THE USE OF PILOCARPINE IN PUERPERAL ECLAMPSIA.

Three cases were detailed, the principal features of which were as follows: *Case I.* Patient, when seen, had had twelve convulsions, was comatose, and greatly œdematous; the urine loaded with albumen; an attempt at venesection failed; then pilocarpine was given hypodermatically. There was profuse sweating, but at the same time copious bronchial secretion, with loud rattling. The condition became alarming, and the patient died three hours after. *Case II.* At eighth month. Considerable œdema present; passed only one ounce of urine in twenty-four hours; gave purgatives and potassium citrate with digitalis; had vapor bath. Eclampsia supervened; gave ʒj fluid extract of jaborandi with good effect. Convulsions continuing, gave morphia sulphate gr. ¼. No more convulsions. *Case III.* Convulsions occurred the day before confinement; found semi-comatose; no œdema; urine solid on boiling; gave gr. ⅛ pilocarpine hypodermatically. At night gave chloral. Next day had no return of convulsions, though she remained lethargic, and was successfully confined. Dr. McKeough considers the use of jaborandi in these cases only an experiment. Barker and Thomas think it of doubtful service. The great depression it produces is against it, whilst in certain conditions the danger of pulmonary œdema and profuse bronchial secretion are great, as shown in Case I. He thinks, from his experience, that it may prove of considerable benefit when used early in cases in which convulsions are likely to occur.

DR. MCLEAN said that though most cases of puerperal eclampsia are uræmic, they are not all so. Some arise from peripheral irritation, and resemble the fits which children have from worms and other causes. A case of his illustrates this fact. A multipara, in whom the abdomen was much distended, had convulsions; there was no albumen in the urine. He gave chloroform and delivered; no more convulsions occurred. He considers chloroform the most valuable agent, as it allays irritation of the peripheral nerves and nervous system generally.

DR. WHITEMAN was opposed to evacuation of the uterus. His practice is to leave the case to nature, except an emergency call for interference.

DR. GEORGE ROSS said that the subject always commanded a lively interest. He thought that, in the treatment of puerperal convulsions, a wrong idea was often made its basis. It is said that the blood is poisoned by a foreign substance—urea, and this must be got rid of. This in itself is even yet an unproved hypothesis. At any rate, he believed that, convulsions existing, the primary object of the practitioner should be to allay the irritation of the nervous centres, independent of everything else; accomplish that, and the eclampsia will cease, and then you will have time enough to take steps for unloading the system and starting the action of freed kidneys. To allay this central irritation we must resort to narcotics, and especially morphia and chloral hy-

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drate. On these principles, therefore, the employment of pilocarpine can only be looked upon as uncalled for, and in not a few cases actually dangerous. He agreed with Dr. McKeough, that it may be very useful in early conditions of albuminuria, or even after convulsions have ceased, but not as a treatment of the eclamptic paroxysms. He would draw attention to a point often omitted in text-books, viz., that prodromata of convulsions—early uræmic symptoms—should always be looked for and actively treated. These consist most frequently in severe headache and repeated vomiting. They can often be completely relieved by narcotic treatment, and convulsions *prevented*, whereas depleting measures do little good, except assisted by the narcotic. As regards emptying the uterus, it has been his practice in a number of cases to treat by opium, etc., and take no step to hurry the confinement. He has never had reason to regret this course.

DR. GRANT agreed with Dr. Ross that it is important to watch puerperal cases, with a view to preventing the serious complication of convulsions. He trusts, in cases with slight œdema, to a course of potash, especially the bitartrate. He is in favor of the narcotic treatment of the actual eclampsia.

DR. DAVIDSON objected to the use of pilocarpine on account of the pulmonary dangers. He saw one case where great lividity was produced, with marked frothy exudation in the bronchi.

DR. THORBURN spoke of the value of pilocarpine in cases of generál anasarca, especially those of a more chronic kind. He considers its use in puerperal cases somewhat problematical. The treatment of puerperal convulsions, he thinks, should not be uniform, but must be based upon the nature of the probable exciting cause.

DR. MCKEOUGH, in reply, said he claimed no special value for the drug, but brought the cases before the Association as observations of some interest, and he was pleased with the discussion they had elicited. He thought his cases were all of uræmic origin, as such cases generally are.

DR. OSLER then read a paper on *The Clinical and Pathological Relation of the Cæcum and Appendix.*

DR. WHITEMAN, of Shakespeare, read a paper on *Pelvic Peritonitis and Pelvic Abscess.*

The following papers were read by title:

Retroversion of the Gravid Uterus, by Dr. W. B. Geikie, of Toronto.

Microörganisms in Puerperal Septicæmia, Prophylaxis and Treatment, by Dr. S. T. Johnson Alloway, of Montreal.

Field Hospitals and Climate in the Northwest Territory, by Dr. Nattreas, of Toronto.

Phlegmasia Dolens, by Dr. A. H. Wright, of Toronto.

Inebriety, a Disease the Result of Physical Causes, by Dr. Hepben Teft, of Guelph.

At the concluding general meeting the report of the Nominating Committee was received and adopted, and the following were elected

OFFICERS FOR THE ENSUING YEAR:

President-elect.—Dr. Holmes, of Chatham.

Vice-President for Ontario, Dr. Sloan, of Blyth; *for Quebec*, Dr. Colin Sewell, of Quebec; *for Nova Scotia*, Dr. Wickwire, of Halifax; *for New Brunswick*, Dr. Earle, of St. John; *for Manitoba*, Dr. Brett, of Winnipeg.

General Secretary.—Dr. James Stewart, of Montreal.

Treasurer.—Dr. Sheard, of Toronto.

Quebec was chosen as the *next place of meeting.*

The Association then adjourned.

AMERICAN GYNECOLOGICAL SOCIETY.

Tenth Annual Meeting held at Washington, September 22, 23, and 24, 1885.

(Specially reported for THE MEDICAL NEWS.)

(Concluded from page 361.)

WEDNESDAY, SEPTEMBER 23D.—SECOND DAY.

MORNING SESSION.

THE PRESIDENT, DR. WM. A. HOWARD, of Baltimore, read the Annual Address. It was entitled

TWO RARE CASES IN ABDOMINAL SURGERY.

He held that all cases, whether successful or not, should be put on record, in order that the knowledge of such affections might be increased. The paper described two rare cases of exceptional interest, in which the doctor was completely baffled in the diagnosis, and declined to make one.

Case I.—S. H., negress, aged 24 years, married, presented herself at the Dispensary of the University of Maryland April 20, 1882. She was seen by the clinical assistant and the following notes made: Menstruation appeared at the age of fourteen and had been regular and normal. She was the mother of five children, the youngest of whom was two months old. She had never had a miscarriage. Some days after delivery she noticed an enlargement in the lower portion of the abdomen, which gradually extended in the middle line until it reached the umbilicus, and was attended with bearing-down pains and frequent micturition. On examination, fluctuation was well marked all over the abdomen, with decided resonance about the umbilicus. There was dulness on percussion and bulging in both flanks. Six weeks later she returned to the dispensary, and at this time the resonance at the umbilicus had disappeared and the umbilicus projected. I saw her for the first time two weeks after this observation was made. At this time she was quite sick, the temperature being 102° F., the pulse 132, and the respiration 32 per minute. Examination showed the presence of fluid in the pleural sac. There were also some crackling râles heard through the lung. The abdomen was as large as at seven months' pregnancy, and was remarkably protuberant in the centre. There was complete dulness over the entire abdomen, not changed by change of position. There was no evidence of a solid tumor, but it had every appearance of a simple unilocular cyst. Vaginal examination showed the uterus well in front of the tumor, and the sound gave a measurement of two and three-fourths inches.

The question which arose was as to the nature of this tumor. Was it ovarian? The extreme infrequency of ovarian tumors in the negro race was against this view. The rapid growth of the tumor was also opposed to this view. The next affection considered was fibro-cystic tumor of the uterus, this is exceedingly rare. The speaker had seen but one such case in the negro. In

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that case the cyst was filled with pus. The patient was operated upon, with a fatal result. Such tumors are rare before the age of thirty-six. They usually develop slowly. There was no menstrual disturbance in this case. For these reasons fibro-cystic tumor was excluded.

Was it a parovarian cyst? These usually develop even more slowly than ovarian cysts. They are usually flaccid. They contain a thin liquid, are comparatively rare, and do not affect the general health. This was therefore excluded.

It was certainly not a case of simple ascites, but was it a case of encysted dropsy, so called, of the peritoneum resulting from simple peritonitis? This is an extremely rare affection, and in the early stages there are symptoms of constitutional disturbance, the abdomen is not prominent, and often it is flaccid. Encysted dropsy was excluded.

Finally, on June 20th, I aspirated the cyst under antiseptic precautions. The fluid which escaped was of a light straw color, and coagulated as speedily as blood. After aspiration, large masses were readily felt through the abdominal wall. The character of the fluid corresponded with that which is said to characterize fibro-cystic tumors of the uterus. The speaker had, however, seen other cases which showed that the character of the fluid was not pathognomonic. In one case of abdominal tumor, fluid was removed which did not coagulate even after being kept for many days. The abdomen was subsequently opened and a fibro-cystic tumor found. In a case of supposed ascites in a man, aspiration was performed, and the fluid removed coagulated quite rapidly.

After the cyst was aspirated, the patient did well for three days, when acute peritonitis supervened, and the patient died on the seventh day.

At the autopsy, a mass as large as a child's head was found in the abdomen. This consisted of omentum, the transverse colon, and small intestine bound together by inflammatory exudation. The inflamed peritoneum was invaded everywhere with miliary tubercles, there was no ovarian or uterine disease. There was some tubercular ulceration of the small intestine, the other abdominal organs were not affected. The pleura was also invaded with scattered miliary tubercles. In both lungs there were some tubercles.

This then was a case of encysted tubercular peritonitis simulating ovarian or parovarian cyst. The failure to recognize the true condition was ascribed to want of attention to the previous history of the case and the recognition of the fact that there had been free fluid in the peritoneal cavity at the first visit.

He then referred to the few similar cases which had been reported. In these cases the disease had appeared, as a rule, under the age of twenty-five years. It has progressed rapidly, the length of time varying from six week to eight months.

Case II.—F. R., aged 24, was admitted to the hospital in July, 1883. She claimed to belong to the colored race, but looked much like a white woman. She had been married one year, but had never been pregnant. There was no evidence of uterine disease. The abdomen was much enlarged, measuring forty-seven inches just below the umbilicus. Vaginal examination showed the uterus pushed forward by a sac containing fluid. There was, apparently, an immense unilocular sac. This had been first noticed seven or eight years before. The increase in size had been gradual, and unaccompanied with pain.

As to diagnosis, ascites was dismissed both by the physical signs and the absence of any cause to account for such a condition. The length of time which the affection had lasted was against its ovarian origin. There are, however, exceptional cases in which an ovarian tumor may be present for a number of years, even as many as twenty-four, without requiring operation. The age of the patient, the length of time which the cyst had been present, the marked fluctuation, and the flaccid nature of the tumor, were in favor of a parovarian cyst. There was one point against this diagnosis, and that was that although the cyst was flaccid, it could not be compressed below the umbilicus. Fibro-cystic tumor was readily excluded. The history of the case was against the existence of encysted peritonitis. The balance of evidence seemed to be in favor of an ovarian or parovarian cyst.

On July 13, the operation was performed. It was made largely with the view of exploration. The peritoneum was found much thickened, and closely adherent to the sac. With difficulty the adhesions were separated for a short distance, and the cyst presented the appearance of an ovarian cyst. A trocar was introduced, and forty pounds of a greenish, viscid fluid removed. An endeavor was made to enucleate the cyst, but the adhesions were so extensive that this could not be accomplished. The cyst was then incised to the extent of the abdominal opening, and on looking into it, it appeared to occupy the whole abdominal cavity, stretching tightly over the spinal column. A small portion of the wall of the cyst was removed, a drainage tube introduced, and the opening closed with stitches. Peritonitis ensued and the patient died. A post-mortem was made, but owing to the physician's unavoidable absence, was not sufficiently full to throw any more light upon the case than had been obtained at the operation. The nature of the cyst, therefore, remained unsettled.

DR. EMMET, of New York, said a few words in regard to the difficulties of diagnosis. It seemed to him that the older he gets, and the more experience he has, the more uncertain he is about diagnosis. While in yesterday's discussion he did not favor opening the abdomen, yet, when a woman has an abdominal tumor he favors opening the abdomen to make the diagnosis, because she has something which must come out. As regards rapidity of development, we cannot depend on that. He has seen parovarian cysts develop in six weeks, and recover after operation. He has also seen cases which had lasted twenty-three years. He has twice opened the abdomen expecting to find an ovarian cyst, and found a fibro-cyst. About two years ago he saw a case in which he could not make a diagnosis. The abdomen was opened, and he saw just such a cavity as had been described. It seemed as if a cyst had at some time ruptured, and its contents had become encysted. The cavity was left open, frequently washing it out. In six weeks the cavity had greatly diminished. Unfortunately, the patient died at this time from strangulation of the small intestine. There is no set of symptoms which we can say belong exclusively to a certain condition.

DR. WILLIAM GOODELL, of Philadelphia, said that

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the President seemed to have been somewhat ashamed that he did not make the diagnosis in the first case. He could tell him that he has removed tumors the nature of which he does not know to this day. In one case he worked for forty-five minutes before he found out what the tumor was. It turned out to be two ovarian tumors which had coalesced, including the uterus between them. He felt more and more the necessity of performing the exploratory operation. For it is impossible to make a correct diagnosis in many of these cases. To illustrate the difficulties of diagnosis, he reported a case which he saw some time ago. A lady presented herself with a solid tumor of the abdomen. There were also metrorrhagia and menorrhagia. He diagnosticated a fibroid tumor of the uterus, but the growth was so mobile as to suggest the possibility of a fibroid tumor of the ovary, and he so noted it in his record book. He advised against an operation. The lady went North, and her sufferings became so great that she consulted a distinguished gynecologist, desiring an operation. He wrote to him, asking his diagnosis. He told him what he thought of the case. He performed the operation, removing a large fibroid of the ovary, there being no adhesions.

Dr. T. A. Reamy wished to put on record another case in which a fatal result followed aspiration in tubercular peritonitis. The patient was a man, but the tumor presented all the characteristics of an ovarian cyst. The patient died the second day after the removal of the fluid.

There is great difficulty in the diagnosis of these abdominal tumors. In reference to the coagulability of fluid from other sources than fibro-cystic tumors of the uterus, he wished to say a word. In a case which he saw some years ago, he tapped a woman and obtained a large quantity of pure blood. This coagulated at once. The patient recovered, and is still living. His inference is that this was a case of tumor of the omentum.

Dr. Howard said, in closing the discussion, that it is agreed by all that cases often occur in which the diagnosis cannot be accurately determined, but in the majority of cases he thinks a correct diagnosis is made. The fact that he was able in these cases to eliminate so many of the ordinary conditions which give rise to these tumors, shows that we have the means of making the diagnosis. The object of the paper was to give an accurate account of this case, in order that it might assist others in cases of obscure abdominal tumors.

Thaddeus A. Reamy, of Cincinnati, then read a paper on

THE CARE OF THE PERINEUM DURING LABOR.

He referred to the various opinions which had been expressed on this subject. There is a general agreement as to the importance of preserving the perineum. In certain cases, however, from anatomical and pathological conditions, laceration is almost inevitable. He spoke of the various methods which had been proposed, dividing them into two general classes, those which aimed to support the perineum and those which were used with the object of retarding the progress of the head. There is one class, numerically small, who believe that the perineum should be let alone. The method about to be described he had adopted several years ago, and it had given him much satisfaction. He was persuaded that he had saved many perinea through its use. It was recommended for primiparæ and others where the structures were greatly imperilled. During the early part of the second stage the patient is allowed to assume any position she prefers, but when the head begins to distend the perineum, the patient is placed across the bed with the limbs in the lithotomy position, with the exception that the knees are kept close together. This is important. The limbs are held in this position by two assistants. A piece of muslin or a towel, ten inches wide, and forty or fifty inches long, is carried around the buttocks of the patient and over the hemisphere produced by the bulging perineum with the upper edge on a level with the fourchette, and the ends given to the assistants. They are instructed to make traction, during the pain, in the manner that the accoucheur may direct. The bandage must be applied smoothly. The direction of the force may be made in any required direction. Care must, however, be taken that the pressure is equably distributed, and that the assistants do not simply pull on the middle or posterior part of the bandage, while the anterior portion is left lax.

In order to show that this procedure is based on good anatomical grounds, the speaker next referred to the anatomy of the perineum, illustrating his remarks with diagrams. According to the old descriptions of the anatomy of this region it was considered that the muscular fibres decussated in the part between the vagina and rectum. Recent observations show that this is not the case, but that the fibres simply meet, and a laceration of the perineum divides no muscular fibres transversely, with the exception of those of the transverse perinei. The fibres are simply separated. When the sphincter ani is divided, its fibres are, of course, divided transversely. The perineum is prevented from lacerating by the protection afforded by the tissue below and the integument. The bandage used in the way described affords a supplementary perineum, as it were. By keeping the limbs in the position indicated, nature is able to supply tissue for the relaxation of the perineum. When the perineum is bulged the lateral and posterior sulci disappear, and the perineum with the advancing head forms almost a hemisphere. The towel is in contact with every part of this hemisphere. The advance of the head may be retarded by making traction on the towel. Where it is accessible, a narrow bed may be used with advantage, the assistants taking their positions near the head of the patient.

The use of this bandage avoids any tendency to exciting expulsive efforts from reflex irritation of the perineum, as is sometimes seen where the fingers are used. It is comfortable to the patient, and does not cause more exposure than other methods. The bandage may be kept on until the shoulder is delivered, thus avoiding rupture from this cause. In order that this method shall be successful, it is important that every detail shall be carried out with painstaking care.

Should a rupture occur, the immediate operation should be resorted to.

Afternoon Session.

Dr. Wilson, of Baltimore, said that all authorities agree that the perineum should be supported, but there is a great variety as to the way in which this support

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should be made. Dr. Reamy's method appears to be very practical, and it has the advantage of leaving the operator free to watch the case.

Dr. Mann, of Buffalo, thought the me... Reamy seemed to be a good one in a certa... of cases, but he is sure that he has see... where it would have been of no avail. T... tures that he has seen have occurred in ca... the acme of the expulsiv... the wom... herself from the accouche... when he ... amine he finds the head ... and th... torn. In such cases, t... chlorof... course obviate the difficul... er objec... method is that it require... istance ... always be secured.

Dr. Taber Johnson had ... in regard to the necessity of ... all, and he has found that p... the perineum occur in the p... support the perineum, than in ... who do not suppor... perineu...

Dr. Chadwick ... ston, th... ing the perineum ... mer; ... dation of the cl... ad un... sufficiently stretch... mit th... He always insures ... exit ... not permit it to e... ing a... which he always em... to hav... side, and then pass ... ver t... by interlocking the ... can ... amount of pressure. ... e he... perineum is sufficiently ...

Dr. Elwood Wilson ... had tried every method s... perineum, with the except... by Dr. Reamy. His usual ... woman to keep her mouth o...

Dr. Reamy, in reply to th... wick, that supporting the pe... said that the word "support" ... or, and he used it in this sense ... nts required has been objected t... eventing rupture of the perineum ... so great, that even if two or thr... required, he thought they sho... led assistants are, however, not req... od the patient cannot get away. ... nethod referred to by Dr. Chadwi... re is not made over the perineum, ... and in the efforts to retard the hea... e produced, causing delivery of the hea... to the axis of the outlet. The metho... ed obviates this. By this method the he... led as much as may be desired. ... lled attention to a clinical picture, familia... nich the head has been permitted to rema... n the perineum for from half an hour to tw... urs, until the perineum is stretched to the de... bed in the paper. The tissues are then in a ... ginning necrosis and exceedingly friable. ... ch a case the use of the towel or bandage ... perils of the perineum, and the perinet... saved where otherwise it would have bee... ot be supported by the hand under suc...

circumstances. If it is desired, the forceps may ... plied with the bandage in position.

Dr. Edward Jenks, of Detroit, then presente...

REPORT OF A CASE OF CÆSAREAN SECTIO...

He ... scribed the following case which he had ... cons... n: The patient aged 27, had given b... ... ye years previously without special di... ... ter she received a fracture of the iliu... ... falling on her. She was taken in l... ... in the morning. The physician in ... ... some difficulty, tried to apply the ... ... de on without difficulty, but co... ... tum... introduce the second blad... ... ne point ... d the attempt to apply the ... ... h the cyst w... t success. The cause ... ... ow the umbi... lf of bone at the seat ... ... aled. The his... s called in and the ... ... ithou... encysted pe... hen decided to ... ... d to be in favor ... t still the hea... ... ing she. ... ... sician wa... operation was ... make sure ... ... It was the view of explo... d the cepl... ... was done, b... much thickened, ... cided to ... ... end. D... lerith difficulty the ... d at tw... ... he forc... distance, and the ... r beg... ... and ... varian cyst. A troc... Th... ... ies... s of a greenish, vis... d t... ... This ... as made to enuclea... ly ... ... ur ho... extensive that this ... pa... ... e in g... yst was then incised ... ... abd... ning, and on lookin... ... was ... he whole abdomina... ... alar... spinal column. A s... ... ecke... yst was removed, a ... ... of th... opening closed with ... ... sutu... patient died. A post... ... d... e physician's unavoi... ... ll full to throw any m... ... been obtained at the o... ... erefore, remained un... ... ork, said a few words ... ... osis. It seemed to hi... ... ore experience he has, ... agnosis. While in y... ... avor opening the abdo... ... dabdominal tumor he fa... ... avoke the diagnosis, becau... ... ytrotome out. As regards ... ... opera... t depend on that. He ... ... uld hav... p in six weeks, and rec... ... ld be p... o seen cases which h... ... so engag... e has twice opened the ... ... livered in n... varian cyst, and foun... ... tain that th... ago he saw a case in ... ... peration. ... osis. The abdomen w... ... of laparo-ely... cavity as had been ... ... em to be an easy ... d at some time rup... ... it had not been ... encysted. The ... ... case, he thought ... ng it out. In six ... ... hed. Unfortunate... ... offered some ... om strangulation o... ... ET of symptoms whi... ... o a certain condition ... ... which ... ELL, of Philadelphia ... ... f these ... oretical ... ... n was ... rceps

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with decided advantage to the patient. He had, therefore, modified his views. A detailed account of the nine cases in which the forceps had been used was then given. The instrument used had been Dr. Howard's modification of Tarnier's forceps.

DR. NEALE, of Baltimore, exhibited his modification of the Tarnier forceps, which consisted in adapting the Tarnier principle to the Simpson forceps.

DR. MANN said he had used the Tarnier forceps for the past two years in a number of cases, with, in the main, satisfactory results. In one case he had a little misfortune which might not have happened with other forceps. It was a case of deformed pelvis in which the Tarnier forceps were applied. The child was finally delivered and the woman made a good recovery. The child was, however, injured by the forceps. The outer edge of one orbit had been crushed in, destroying the eye. The child was living at the time of birth, but subsequently died.

THE PRESIDENT said that, so far as he knew, he was the first one to use the Tarnier forceps successfully in America. He thought that in cases of occipito-posterior positions, the application of other forceps interferes with the rotation of the head, but with the Tarnier forceps the head is free to rotate.

EVENING SESSION.

At the business meeting, the following were elected

OFFICERS FOR THE ENSUING YEAR:

President.—Dr. Thaddeus A. Reamy, of Cincinnati.

Vice-Presidents.—Dr. Theophilus Parvin, of Philadelphia, and Dr. George J. Engelmann, of St. Louis.

Secretary.—Dr. Joseph Taber Johnson, of Washington, D. C.

Treasurer.—Dr. Matthew D. Mann, of Buffalo.

Other Members of the Council.—Drs. Frank P. Foster, B. B. Browne, J. C. Reeve, and R. B. Maury.

New members were elected as follows: Dr. J. B. Hunter, of New York; Dr. Charles Jewett, of Brooklyn; and Dr. W. H. Parish, of Philadelphia.

The *next meeting* will be held at Baltimore, Md., September 21, 22, 23, 1886.

THURSDAY, SEPTEMBER 24TH.

MORNING SESSION.

DR. R. STANSBURY SUTTON, of Pittsburg, read a paper on

A MODIFICATION OF EMMET'S CERVIX OPERATION IN CERTAIN CASES, WITH A CASE.

He stated that, while the operation was original as far as he was concerned, he did not claim to be the only one who had performed it. Cicatricial tissue is found to a greater or less extent in every lacerated cervix which has lasted for any length of time. This is especially apt to be the case where nitrate of silver has been used in the treatment of the cervix. The hardened tissue may be present in both lips or it may be limited to one lip.

The case reported was operated on June 5, 1885. She was the mother of several children. There was a double laceration of the cervix. The tissue of the anterior lip was hardened and hypertrophied, and the lip was convex from side to side and also from before backward, so that, by the ordinary method of operation, correct coaptation could not be effected. The tissue of the anterior lip was as hard as cartilage. Ordinary denudation of the posterior lip was sufficient, and this was made, leaving the strip of mucous membrane somewhat wider than usual. The cicatricial mass involving the anterior lip was removed from border to border, completely denuding this portion of the cervix. The parts were then brought together in the usual way, and the result was excellent. The cervical canal readily admits a sound and the woman menstruates without difficulty.

He thought that there were cases in which nothing short of the complete removal of the cicatricial tissue will be sufficient.

DR. WM. GOODELL, of Philadelphia, said that he had resorted to this device on more than one occasion. He had done another thing on a few occasions. He had outlined the strip of mucous membrane to be left and dissected it from the tissues below, leaving it united at its base. The indurated tissue has then been removed and the flaps brought together. The result has been good. He had never as yet denuded both surfaces, although he understands that it has been done by some of the gentlemen.

There is a point on which he should like to hear the opinion of the Society. Sometimes the Nabothian glands are enlarged and are cut through in the operation, and it has been his rule to dissect these out, but sometimes this leaves an attenuated cervix. He should like to hear what the members have to say as to the method of dealing with these enlarged glands.

DR. SKENE, of Brooklyn, said that the term cicatricial tissue is incorrect. This is not cicatricial tissue. How could there be cicatricial tissue below a mucous membrane where there has been no damage? It is a true sclerosis, a hypertrophied, indurated tissue. This is, however, simply a question as to name. Much can be done to get rid of this tissue by preparatory treatment. But this often requires too much time, and then such an operation as that proposed by Dr. Sutton comes in. While speaking of preparatory treatment, he would say that enlarged Nabothian glands should be disposed of either by preparatory treatment or at the time of the operation. His plan in the cases referred to by Dr. Sutton has been to do a preliminary operation, which consists in removing a transverse, wedge-shaped piece out of one or both lips of the cervix, as the case may require, and then bringing the surfaces together with silk stitches. After the first day the patient can go about, and the sutures are removed in the course of a week or ten days. After the size of the cervix is reduced he performs the ordinary operation. He has done both operations at one sitting, but he prefers to do them separately. One objection to the method of Dr. Sutton is, that it leaves cicatricial tissue.

DR. GEORGE J. ENGELMANN, of St. Louis, has found the condition referred to very constantly. He now cuts deeply and removes the indurated tissue; and in old and severe cases it is impossible to retain the strip of mucous membrane. He, therefore, removes it. He has done this on both lips, and on some occasions has had complete union, but the passage of a probe serves to keep a canal open. For the last few years he has paid no attention whatsoever to this central strip. He

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now inserts a single strip of the carbolized silk thread which he uses in closing the opening. A probe passed a few times after the removal of the sutures will dilate the opening. The result of this operation has been good. The union, the involution, and the restoration of the health of the patient have been perfect. This operation has been done only in severe cases, and, as far as I know, none of these patients have conceived.

DR. M. D. MANN has tried the method described by Dr. Sutton. In only one case was it necessary to denude both surfaces. To keep a patulous canal, he introduced a piece of small drainage-tube. The case did well. Where there are diseased Nabothian glands, and there is plenty of time, he prefers to treat the mucous membrane before performing the operation. Where there is little time, he excises the follicles. So far, the result has been good. He has, however, never done this on both lips.

DR. BAKER, of Boston, thought that the retention of the mucous membrane is important, and that the method of Dr. Sutton, by leaving cicatricial tissue on one side of the canal, will tend to make the canal tortuous. As a rule, if the patient is properly prepared, it will not be necessary to remove this hypertrophied tissue. If this is not done, Emmet's operation can still be performed in the way described by Dr. Skene. He, however, prefers to do both operations at the same time. It is then not necessary to introduce a suture to bring the transverse incision together. Great care should be exercised in the introduction of substances between the two flaps.

THE PRESIDENT, DR. HOWARD, of Baltimore, said that, a few weeks before the death of Dr. Sims, he saw Dr. Harry Sims perform this operation in the presence of his father. He inserted a glass tube which fitted so loosely that it had to be retained with a plug of cotton.

DR. SKENE thought that, if the denudation was practised on both sides, stenosis would certainly follow.

DR. WILLIAM GOODELL, of Philadelphia, then read a paper on

INFLAMMATION OF THE PAROTID GLANDS FOLLOWING OPERATIONS ON THE FEMALE GENITAL ORGANS.

He referred first to the close relation existing between the salivary glands and the genital organs of the adult as shown in mumps and other conditions. Parotid bubo seems particularly liable to follow ovariotomy where septicæmia has taken place. He had seen parotid bubo once in 153 cases of ovariotomy. This was in a greatly emaciated woman, from whom a tumor weighing eighty pounds was removed. The patient had been twice tapped, once six weeks before the operation. The second tapping was followed by septic poison, and the operation was performed as a last resort. The patient did well until the ninth day, when the left parotid gland began to swell. It suppurated and was opened. The patient finally died on the twenty-second day after the operation.

There is a transferrence of irritation to the parotid glands in which there is no evidence of septic poisoning. Of this the author had seen three instances: twice after ovariotomy and once after oöphorectomy. In these cases the parotid complication did not influence the progress of the case. Not one of these ended fatally. He regarded the affection of the glands as sympathetic, and not symptomatic.

Within a short time he had operated on a lacerated cervix. The operation was followed by free hemorrhage, and in the second week the parotid glands began to swell. This was succeeded by hysterical trismus which lasted for some time. The patient recovered.

DR. SUTTON said that, out of twelve ovariotomies, he had lost one patient, and she died with the complication referred to in the paper. The case did well until convalescence was reached, when one parotid gland began to swell. This was followed by swelling of the other gland. The temperature varied one or two degrees from the normal. There was slight diarrhœa, no tympany, and no soreness. A number of rose-colored spots were found about the second week over the abdomen and arm. In the third week she became much worse. The glands diminished in size, but the temperature ran up and she died. He regarded the case as septicæmic. Others who saw the case considered it a a well-marked instance of typhoid fever.

DR. J. T. CHAS. JOHNSON had seen this complication in one case of ovariotomy. On the third or fourth day, swelling of the parotid appeared. There were the rose-colored spots referred to by Dr. Sutton. There was some fever, and the patient died on the sixth day.

DR. MANN referred to three cases which he had seen. The first was a case of ovariotomy. There were distinct symptoms of septicæmia, and the patient died before the glands suppurated. The second case was one in which he removed all the uterus above the internal os, and also the ovaries. At the end of the first week, one gland became swollen. There was little fever. The patient made a good recovery. The third case was a boy who had received a penetrating wound of the abdomen. Enlargement of the glands followed, but he made a good recovery.

DR. EMMET added his experience of two cases. Once it followed an operation for lacerated cervix, the patient recovering. Once it followed an operation on a small vesico-vaginal fistula, the patient dying. This is the only time he has seen death follow this operation.

DR. BAKER had had the complication follow Tait's operation, but the patient recovered.

DR. REAMY had had two cases. One was after Tait's operation. The glands did not suppurate, but the patient died the seventh day after operation. The second was a case of supravaginal hysterectomy, in which the uterus and both ovaries were removed. The left gland became much enlarged, but did not suppurate. The patient recovered.

DR. JAMES R. CHADWICK, of Boston, then read a paper on

PERISTALSIS OF THE GENITAL TRACT, AND A NEW THEORY TO EXPLAIN RELAXATION OF THE VAGINAL OUTLET DURING LABOR.

Some time ago he was called to see a primipara in labor. He found the os slightly dilated and the vaginal outlet quite rigid. Returning two hours later, the outlet was found much relaxed, although the head had not escaped from the uterus. On another occasion, a woman with a bleeding fibroid tumor consulted him. The examination revealed quite a small outlet. Ergot was given to check the bleeding. Later the patient returned

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and the outlet was found much relaxed. This had occurred coincident with the occurrence of uterine contractions, and the forcing down of the tumor. Further investigation of this subject had led him to the conclusion that there is a peristaltic action of the lower portion of the genital canal, as well as of the Fallopian tubes, and that it is to this that the relaxation of the outlet is largely due.

DR. GOODELL said that a fact which seems to bear out this idea is, that when after labor or an abortion a piece of membrane or of placenta is retained, the cavity of the cervix is found funnel-shaped, showing that the uterus is trying to force out the retained substance.

DR. THEOPHILUS PARVIN, of Philadelphia, reported a case of

FACIAL PARALYSIS IN THE INFANT FROM THE USE OF THE OBSTETRIC FORCEPS.

The case was a well-proportioned woman, aged 30 years, who had been in labor thirty-two hours, the first stage lasting twenty-four hours. The only difficulty appeared to be want of strength in the uterine contractions. The forceps were, therefore, applied, and the child delivered. The following day it was observed that one side of the face was paralyzed, this was especially noticeable when the child cried. There was no evidence of bruising from the forceps. The paralysis disappeared in ten days without treatment.

The literature of this affection was then referred to, and the reported cases given. The writer referred to cases of spontaneous facial paralysis occurring in labor, and pointed out the means of distinguishing between this palsy and that caused by the forceps.

In one case that has been reported, there was double facial palsy caused by the forceps, but usually it is only one side that is affected. So far as statistics permit a conclusion, the side affected is that which is towards the posterior portion of the pelvis. Thus in a vertex presentation, and left occipito-anterior position, the palsy will be of the left facial nerve. The explanation of this is probably found in a lateral obliquity of the fœtal head, and indicates that the parallelism of the fœtal head planes and the maternal pelvic planes is not as constantly present as some obstetric teachers have asserted.

While spontaneous recovery is the rule in facial palsy caused by the forceps, this does not always occur, and the palsy remains permanent. Therefore, if recovery has not taken place in one or two months after birth, appropriate treatment should be begun.

DR. ELWOOD WILSON, of Philadelphia, had seen this accident a number of times, both in his own practice and that of others. Recovery, as a rule, has occurred spontaneously.

DR. GOODELL had seen such cases, and in every instance the paralysis has been on the right side. He attributes this to the predominance of the left occipito-anterior and the right occipito-posterior positions. Under such circumstances, one blade of the forceps would make pressure on the nerve.

DR. SKENE said that differential diagnosis between facial paralysis from injury and facial paralysis from apoplexy is of importance, for apoplexy is not uncommon in newborn children. Usually the diagnosis is readily made, but difficulty occurs where there is facial paralysis from injury associated with paralysis of the arm caused by violence in delivery. He recently saw such a case in consultation. In this case it was of great importance to complete the labor quickly, and the shoulder had been injured in delivery, so that there was facial paralysis and paralysis of the arm on the same side. At first there was no trace of contusion, but in a short time ecchymosis appeared and a favorable prognosis was given, which was verified.

DR. RICHARDSON, of Boston, said that in most of the cases that he had seen the paralysis had been on the right side. He had seen it occur once from the pressure of a bony tumor of the pelvis. He had seen it where the forceps were applied to the after-coming head.

DR. PARVIN, in concluding the discussion, said that so far as positive statements were made by those discussing the paper, they confirmed the statement he had made as probable, that the side of the face affected by palsy from the forceps was the posterior. The only other point to which he desired to refer was to emphasize the fact, that this palsy, though usually a simple thing, disappearing in a few weeks, in some cases is permanent, and therefore the importance of not being too positive in promising recovery.

The following papers were read by title:

The Genupectoral Posture in the Prolonged Nausea and Vomiting of Pregnancy, with Cases, by Dr. H. F. Campbell, of Augusta, Ga.

A Study of an Unusual Type of Puerperal Fever, by Dr. Fordyce Barker, of New York.

A RESOLUTION OF SYMPATHY.

A resolution expressing the sympathy of the Society with Dr. Albert H. Smith, in his sickness, was adopted.

The officers for the ensuing year were then installed, and the Society adjourned.

MEDICAL SOCIETY OF VIRGINIA.

Sixteenth Annual Session, held at Alleghany Springs, Montgomery Co., Sept. 15, 16, and 17, 1885.

(Specially reported for THE MEDICAL NEWS.)

(Continued from p. 356)

THURSDAY, SEPTEMBER 17TH.—THIRD DAY.

MORNING SESSION.

DR. R. T. STYLL, of Richmond, presented the

TREASURER'S REPORT,

showing a balance of $390.55.

A sum, not exceeding $100, was voted to be used, if necessary, to retain legal council in the event of the State Board of Medical Examiners being sued, as threatened by a complainant who did not pass examination.

DR. W. D. TURNER, of Fergusson's Wharf, from the Committee to consider the subject, reported favorably on the petition for the enactment of a bill to regulate

THE PRACTICE OF PHARMACY.

DR. BEDFORD BROWN, of Alexandria, read a paper on the

TREATMENT OF LACERATIONS OF THE OS AND CERVIX UTERI, WITHOUT SURGICAL OPERATION.

Emmet's operation, though valuable, is sometimes dangerous. An experience with about twenty cases

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during the past eleven or twelve years convinces the author that this large class can be relieved by a simple, painless, safe, and easy method of treatment by any intelligent practitioner, without resort to surgical operation, and by means of local treatment alone. The character of his cases has varied from a mere fissure to the most severe laceration. Sterility was an invariable feature. Many cases were complicated with cellulitis, localized peritonitis, subinvolution, metrorrhagia, displacement, proctitis, etc. The general health was impaired in almost every case. There were peculiar neuralgic pains in all those nerves coming within the circle of sympathy of the exposed and lacerated nerves of the os uteri. Thus, the great lumbar plexus manifested its sympathies in the form of a constant aching pain in the base of the sacrum. Ovaralgia on the side of the injury, or on both sides, if the injury was double, was almost invariable. In a few cases the development of sciatica indicated reflex sensation on the part of the sciatic nerves. Neuralgia of the crural nerves and their branches was common. These pains extended to the patella, and even down to the dorsum of the foot.

Dr. Brown has healed, by first intention, several cases of laceration in the acute stage by means of absolute quiet, disinfection, and cleanliness. If lacerations fail to heal by first intention immediately after labor, they never heal spontaneously by second intention. Local treatment then becomes necessary. Dr. Brown examines the womb for lacerations, etc., immediately after the discharge of secundines in each case of labor; and, if found, he begins a systematic course of treatment after the first twenty-four hours, with a view to absolute disinfection and cleanliness. Warm douches of borax, boracic acid, and carbolic acid solutions are gently used two or three times daily, and the patient is kept in the recumbent position for two weeks. If healing does not occur by that time, it does not occur afterwards spontaneously. In eight or ten weeks later, in such cases, he proceeds to secure healing by the second intention. For this purpose he has used carbolic acid, chromic acid, Battey's solution of carbolic acid and iodine, Churchill's tincture of iodine, solid nitrate of silver, and even nitrate of mercury, but without favorable results. He then adopted graduated solutions of crystals of nitrate of silver, with excellent results. Solution No. 1 is as follows:

℞.—Argenti nitratis, cryst. . . . ʒss.
Aquæ destil. . . . . fʒj.—M.

This solution is to be applied to the interior of the cervical canal freely, down to the os internum, as the cervical canal is always involved in the rent and is left in a diseased condition.

Solution No. 2 is:

℞.—Argenti nitratis, cryst. . . . ℈iiss.
Aquæ destil. . . . . fʒj.—M.

This solution is to be applied with a camel's-hair brush freely over the entire external surface of the os and cervix, including the fissure of the laceration, until a uniform white coating is formed, thick and tenacious, almost resembling a coat of paint. This gives immediate protection to the super-sensitive extremities of the exposed nerves and tender granulations, and acts as a sedative application, which allays irritation, redness, inflammation and engorgement rapidly, and stimulates a new vital action and healthy growth of granulations, which fill up the fissures or cavities of the laceration, and accomplishes the healing of the wound by second intention. This coating, in the meantime, forms an impervious barrier to the further absorption of septic matter from the discharges, and in this way relieves pelvic cellulitis. The healing process and reduction of hypertrophy of the cervix and inflammation progress rapidly. The process of absorption is stimulated in a wonderful manner, and the process of involution is also promoted in proportion.

In simple fissure of the cervix extending through the mucous membrane and fibrous tissue only partially, solution No. 1 should be applied thoroughly in the groove of the fissure, so as to reach its very bottom, and thus induce healing from the lowest depths of the wound; otherwise the object will be defeated.

Solution No. 3 is:

℞.—Argenti nitratis, cryst. . . . ʒiss.
Aquæ destil. . . . . fʒj.—M.

This solution is only to be applied to the external surface of the cervix, in the event of hypertrophy and induration remaining after the lacerations have healed; otherwise, if left in that condition, it forms a basis for the renewal of inflammation and reopening of the wound. After treatment, the cervix becomes naturally soft and normal in dimensions. The os is not only not contracted by the application, but returns to a perfectly healthy condition.

A great majority of females thus treated have borne from one to three children since, and have been entirely free of all uterine troubles. In three patients—one having borne three children, the second two, and the third one child after treatment—the os uteri in each case was found perfect as to softness, dimensions, and freedom from disease. Concealed fissures are often found after labor in the mucous membrane of the cervical canal, and cause an infinite amount of local disease, such as endocervicitis, hypertrophy of the adjacent tissues, inflammation of the fibrous tissues of the cervix, leucorrhœa, and often painful menstruation. A favorite locality for these fissures is at the internal os. The mucous membrane and submucous tissue are split through, and then the rent remains a source of trouble for years. The No. 1 solution of nitrate of silver reaches these wounds admirably, and will surely heal them from the bottom.

DR. GEORGE T. HARRISON, of New York City, then read a paper on

PUERPERAL SEPTICÆMIA, ESPECIALLY WITH REGARD TO PROPHYLAXIS AND ETIOLOGY.

Without a wound somewhere along the genital tract, puerperal septicæmia does not exist. In the puerperal woman, the conditions for the rapid development of the pathogenous fungi are most favorable. Contrary to general opinion, Gusserow has shown that there is no connection between puerperal sepsis and erysipelas, and that the micrococci of erysipelas cannot produce pathological changes identical with septic processes. The pathogenous fungi affect the organism immediately, while putrefactive germs do so indirectly by

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their influence on decomposable matters always present in puerperal women. An autogenous or autochthonous infection is an impossible thing. The characteristic features of non-pathogenous infection are, (1) the late appearance of the fever; (2) the slight participation of the general condition; and (3) the existence of local morbid substrata.

The principles of prophylactic treatment consist in pure air for the lying-in woman, the careful avoidance of introduction of infectious matters into the genital passages, and the thorough disinfection of the genital tract. The physician's and midwife's hands, instruments, etc., should be disinfected before using about a puerperal woman. During the pregnancy, especially if there be any puerperal fever epidemic, the woman should frequently wash her external genitals with soap and water, and afterwards with boracic acid solution.

In tedious and complicated labors, where frequent examinations have to be made, or instruments used, injections are strongly indicated. Sometimes putrefactive decomposition of the uterine secretions occurs before labor ends. In such cases, complete the labor as speedily as possible, and thoroughly disinfect the genital tract by intrauterine injections of carbolic acid or mercuric bichloride. Wash the external genitals three or four times daily, and disinfect once a day by carbolic acid or mercuric chloride solution. Close all lacerations of the perineum and vagina under strict antiseptic precautions, as the continuous catgut suture. Iodoform dusted over the raw surface favors union. A powerful contraction and retraction of the uterus greatly help in securing immunity from invasion of putrefactive bacteria; hence the value of Credé's method in expelling the placenta.

DR. H. GREY LATHAM, of Lynchburg, read the report on

ADVANCES IN SURGERY.

He said that laparotomy is now an established operation for strictures of the intestines, strangulations, excision of organs not essential to life, etc. Do not wait too long in strangulations of the bowels; operate as soon as diagnosis is made out—as soon as vomiting sets in. Cut down so as to reach the cæcum at once. If this is distended, the obstruction is below; if it be collapsed or not tense, it is above. If the strangulated coil of bowel is gangrenous, resect it, and establish an artificial anus. When laparotomy is rejected, adopt Nélaton's enterotomy in the right iliac fossa. He stated as propositions, (1) that the best guide to the seat of an obstruction is not manual exploration, but visual examination, assisted, if necessary, by extrusion of the bowel; and (2) that no case of operation is properly concluded until an overdistended bowel is relieved of its contents.

In operations for hernia, invagination has been laid aside or neglected, and obliteration of the sac or closing the neck are the popular procedures. In operative treatment for rectal cancer, the following guides are said to be reliable: 1. If the finger cannot be passed beyond the disease, unless it is confined to the posterior wall, do not operate. 2. The growth can be removed at a somewhat greater height when the disease is confined to the posterior wall. 3. If, when the finger has passed beyond the disease, the bowel is movable on the adjacent structures, generally speaking, the growth has not extended beyond the rectal walls, and the case is suitable for operation; but if the bowel feels hard, rigid, and firmly bound to the surrounding organs, the case is unfavorable for an operation. 4. Examine carefully the abdominal viscera, and if secondary deposits be suspected in the liver, no operation should be performed.

DR. RIVES TATUM, of Harrisburg, presented the report of the Committee on *Advances in the Practice of Medicine.*

(*To be concluded.*)

NEWS ITEMS.

NEW YORK.

(*From our Special Correspondent.*)

ITALIAN QUARANTINE.—The Italian bark Excelsior arrived here, a few days ago, from Marseilles, upon which when she was a few days out, a sailor died, of cholera. No other case followed. She now lies in the lower bay, and a rigid quarantine against her has been established.

THE FUTURE OF THE INTERNATIONAL CONGRESS excites little or no interest, and those who discuss the matter at all, uniformly express hope that the nation may be spared the disgrace of a slipshod meeting, where junketing shall be made to fill up the gaps caused by the withdrawal of the valuable scientific work which, under the original organization, was to have been contributed by the best men from all parts of the country.

MR. JOHN MCCULLOUGH, the tragedian, who is now an inmate of Bloomingdale Asylum, is the victim of general paresis, and, from all accounts, the disease in his case is rapidly progressive. This is one of the examples that show the necessity for prompt asylum treatment; and, had the wiser counsels of his physicians prevailed, not only much misery, but a great deal of the money he squandered might have been saved. In no city of the Union do we find the stupid obstinacy of juries and popular ignorance regarding the treatment of the insane that prevail in New York. Rhinelander, who was discharged as sane, has been on the rampage since he obtained his freedom; and the last act of Prouse Cooper, the tailor, before going to Australia, was the purchase of six or eight pistols.

MORE RESIGNATIONS FROM THE CONGRESS ORGANIZATION.—Dr. William H. Welch, of Johns Hopkins University, has declined the Secretaryship of the Section of Pathology; Drs. T. A. McGraw, of Detroit, and J. R. Weist, of Richmond, Indiana, have declined Councillorships in the Section of Surgery; Dr. E. H. Hazen, of Davenport, Iowa, has declined the Councillorship in the Section of Otology; and Dr. E. L. Shurley, of Detroit, Mich., the Councillorship in the Section of Laryngology.

PUBLIC OPINION ON THE CONGRESS ORGANIZATION.—The committee has doubtless done just the work its manipulators set to its hands; but, whether its policy be voted wise or foolish, the denouement will show that the breach between the opposing parties is widened beyond

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repair, and that the contending voices are dissonant beyond the hope of harmony.

The distinguished guests who, soon after the June house-warming, stepped out and have since been standing in the rain, have not been asked to come in by the new proprietors; nor would they in the existing state of the house have accepted the invitation had it been extended. Their places have been or soon will be filled by others, worthy, indeed, but less renowned; and when the new list of officers and councilmen for the Ninth International Medical Congress shall be laid before the medical world, it will be destitute of many attractive features which characterized the original committee's issue in the early spring. Whether or not this strangely altered face will have charms of sufficient attractiveness to draw our foreign brethren across the sea remains to be seen; but if the signs of the times be not grossly misleading, the Congress of 1887 will not meet on American soil.—*Louisville Medical News.*

ASSOCIATION OF AMERICAN INSTITUTIONS FOR IDIOTIC AND FEEBLE-MINDED PERSONS will hold its ninth annual session at the Illinois Asylum for Feeble-minded Children, Lincoln, Ill., commencing Tuesday, October 6th, at 3 o'clock P. M.

Papers will be presented by Col. H. M. Greene, Dr. F. C. Carson, Dr. H. B. Brown, and others.

By resolutions of previous sessions, the following reports will be called for: "On Causation of Idiocy, etc.;" "On Status of the Work before the People and Legislatures of the Various States;" "On Development and Progress of the Institutions Represented;" "Improvements in School Training and Hospital Care Introduced during the Past Year;" "Clinical Reports of Special Cases."

CHOLERA IN SPAIN.—According to the reports received by the National Board of Health, there have been, from March 4 to August 16, 159,173 cases and 63,640 deaths.

THE NESTOR OF PHYSICIANS IN THIS COUNTRY is probably Dr. Neyron, Professor of Anatomy in Notre-Dame University, Indiana. He is ninety-four years of age, and was a surgeon in Napoleon's army during the Russian campaign, and was present at Waterloo. After the restoration he became a Catholic priest, and was an early missionary in the Northwest. Few men of seventy are so strong and active, and he is still able to conduct his classes.

DR. PAUL BÖRNER, Editor of the *Deutsche medicinische Wochenschrift*, and Editor and Publisher of the *Jahrbuch der Prakt. Medicin*, died recently in Berlin after a short illness, at the age of fifty-six years.

THE ANTWERP MEDICAL CONGRESS.—This Congress terminated its labors on the 30th of August, by a visit to the Hospital of the Stivenberg. In the full sittings it was resolved that "in the present state of relations between the peoples of Central Europe, land quarantines and sanitary cordons are useless and even dangerous measures; the fumigation of letters is useless." The majority of the Congress declared itself for the maintenance of maritime quarantines in seaports and at the mouths of rivers. Such quarantines were also pronounced to be feasible and efficacious in Belgium.—*Lancet*, September 5, 1885.

NOTES AND QUERIES.

DEATH OF DR. ANDREW MURPHY.

AT a meeting of the physicians of Parkesburg, Chester County, Pennsylvania, the following preamble and resolutions were adopted:

Whereas, God in his Providence has removed from our companionship and counsel, Dr. Andrew Murphy, who for over half a century has honored and graced the ranks of the medical profession, therefore,

Resolved, that while we bow in submission to the decree of an all-wise Father, we wish to record our appreciation of the example which his life of generous and noble deeds affords, and our confident trust that through the blessed atonement, he has only been "called up higher" to a more exalted sphere of action, making the loss which the profession, the community, and his family have sustained, his infinite gain.

Resolved, that we hereby bear cordial testimony to the unvarying courtesy which ever characterized his relations with the profession, and to the esteem and regard in which he was universally held by its members.

Resolved, that a copy of these resolutions be presented to the family, with an expression of our sympathies, and be published in THE MEDICAL NEWS, the county papers, and *Medical and Surgical Reporter* of Philadelphia

(Signed.) DR. EBER HUSTON,
DR. T. A. TAYLOR,
DR. E. V. SWING,
Committee.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY DURING THE WEEK ENDING SEPTEMBER 26, 1885.

DUGAN, J. S., *Medical Director.*—Waiting orders.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, FROM SEPTEMBER 22 TO SEPTEMBER 28, 1885.

PROMOTIONS.

MCPARLIN, T. A., *Lieutenant-Colonel and Assistant Medical Purveyor*, to be Surgeon with rank of Colonel, to date from September 16, 1885.

IRWIN, B. J. D., *Major and Surgeon*, to be Assistant Medical Purveyor with rank of Lieutenant-Colonel, to date from September 16, 1885.

POPE, B. F., *Captain and Assistant Surgeon* with rank of Major, to date from September 16, 1885.

APPOINTMENT.

MORRIS, EDWARD R., to be Assistant Surgeon with rank of First Lieutenant, to date from September 17, 1885.

ADAIR, G. W. *Captain and Assistant Surgeon.*—Granted leave of absence for one month with permission to apply for one month's extension.—*S. O. 104, Department of Dakota*, September 18, 1885.

BUCKNELL, GEORGE E., *First Lieutenant and Assistant Surgeon.*—Ordered from Department of Dakota to Department of the East.—*S. O. 219, A. G. O.*, September 24, 1885.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE-HOSPITAL SERVICE, FOR THE WEEK ENDING SEPTEMBER 26, 1885.

AUSTIN, H. W., *Surgeon.*—To proceed to Burlington, Vermont, on special duty, September 23, 1885.

THE MEDICAL NEWS will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLVII. SATURDAY, OCTOBER 10, 1885. No. 15

ORIGINAL LECTURES.

AORTIC INCOMPETENCE.

A Clinical Lecture Delivered at the University Hospital.

BY I. E. ATKINSON, M.D.,

PROFESSOR OF PATHOLOGY, DERMATOLOGY, AND CLINICAL MEDICINE IN THE UNIVERSITY OF MARYLAND.

GENTLEMEN: We are fortunate to-day in having an opportunity to compare four cases of valvular disease of the heart, with consequent and associated conditions of the highest interest.

Case I.—Our first patient is a mulatto, 45 years old, a brickmaker. He has never had syphilis or rheumatism. He has been generally healthy, but has led a life of hardships, though not of excess. His personal and family history is not noteworthy. About two years ago he began to have pain in his chest, and to suffer from palpitations, and gradually lost the energy and endurance requisite for his work. He has never had dropsy. He is, as you see, of small but muscular frame. His expression is anxious. As he stands before you, his naked body is seen to vibrate with every beat of his heart. Violent pulsation is visible over his subclavian, carotid, temporal, brachial, and radial arteries. The brachial fairly writhes and leaps from its bed. Bulging in the præcordial region is manifest. The head of the right clavicle is distinctly enlarged, but it is equally evident that this is due to accidental causes, and not to growth or pressure from within. A heaving pulsation is felt over the whole anterior chest wall. The hand laid flat over the second and first intercostal spaces, to the right of the sternum, perceives a feeble systolic thrill but no shock. The area of cardiac dulness extends nearly one inch beyond the nipple line, and the apex beat is strongest in the sixth interspace. It is forcible and diffused. There is slightly increased relative dulness over the upper sternal region. A double murmur is heard over the apex, but as the ear is moved towards the axillary line, the mitral valve is heard to close perfectly. Superiorly, the double blowing murmur becomes more and more intense and is most distinct in the second right interspace at the sternal border. These murmurs are audible over the whole right upper chest, and to the left no normal valve sound can be heard until the axillary line is reached. They are loud and prolonged. In the left interscapular region both the systolic and diastolic murmurs are heard as low as the angle of the scapula. They are pronounced over both carotids, and are audible over the abdominal aorta, and the femoral arteries.

The radial pulse strikes the finger with an abrupt, powerful shock, that, however, exhausts itself at once, and reveals typically the "water-hammer" or "Corrigan's" pulse, characteristic of insufficiency of the aortic valve. Similar pulsatile violence is observed in the femorals, which beat synchronously with the radials. If the finger is pressed behind the suprasternal notch, the pulsation, so apparent to the eye, is felt to be of a violent expansile character. This arterial distention is also very evident when the fingers are placed over the carotids. There is no pulmonary disorder, no cough, no dysphonia, no dysphagia. There is much pain under the sternum. It is paroxysmal and frequently extends to the left shoulder and down the arm. The pupils are equal. There are no signs of intrathoracic pressure; in a word, aneurism is not present. The abdominal organs are sound. There is no albuminuria. Sleep is uninterrupted, but is often accompanied by dreams. He suffers sometimes from dyspnœa, but it is not oppressive, and you observe how easily he rests in a supine position. In such a case a diagnosis can almost be made from viewing the præcordial prominence, the forcible heart action, and the violent pulsation of the larger superficial arteries. We have to do, indeed, with aortic regurgitation with consequent great hypertrophy of the left ventricle with dilatation, and also with dilatation of the aorta and of the great arteries nearest to it. Whether the loud systolic murmur and thrill are due to aortic stenosis, or to disease of the aorta itself, we will consider after examining our next patient.

Case II.—James B., a negro hotel porter, 35 years old, of temperate habits, has never had syphilis, but has had several attacks of acute rheumatism, the first, seventeen years ago. He has of late years, though still able to do heavy work, had increasing difficulty in accomplishing it, with pain in the chest, palpitations, epistaxis, and hæmoptysis. Latterly he has been compelled to abandon his work. He has been without severe dyspnœa, and rests easily upon his back. Attention is at once attracted to his heart by the very marked throbbing of his arteries and by the forcible abrupt character of his pulse. There is decided prominence of the præcordial region with violent heart action. In the sitting posture his whole body vibrates from the force of his heart-beats. He is before you to be examined, but to recapitulate his symptoms would almost be to repeat those of our first case. There is, however, pulsation in the suprasternal notch and over the carotids to a greater extent, and these vessels can be felt to be greatly distended, while behind the sternal notch the expansile pulse is very forcible and has a pronounced thrill. There is a loud and protracted systolic and diastolic basic murmur. Upon several occasions recently, during a mild attack of rheumatic fever, I have noticed a symptom that I do not remember to have seen mentioned. Over the belly, which otherwise presented no abnormal signs, there was a pulsation not due to the aortic beat, which could be plainly felt in the usual position. It was very perceptible all over the abdomen and *was distinctly later than the beating of the aorta and femoral.* This belly pulsation was not forcible and was not accompanied by a bruit. It was detected everywhere, above, below, in front, and at the flanks. To determine its nature, the patient was carefully studied while talking,

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when it became evident that it was not voluntary. B. is temporarily better, and of late this pulsation has not been observed, but I attribute it to the continuation of the pulse wave to the smallest arteries of the abdominal cavity and wall, reaching even into the capillaries, and thus giving a pulse that extends to the peripheral vessels an instant later than the wave reaches the femoral in the more direct channel. Another point of interest in our patient is the intense pulsation in the suprasternal fossa and in the carotid arteries. There is no difficulty in determining that this is due to distention and dilatation from the powerful heart contraction, and that it is not due to aneurism, of which all other signs are absent. B. is, like our first patient, absolutely without signs of passive engorgement, a piece of good fortune that he owes to his healthy auriculo-ventricular valves.

It is not difficult to understand why aortic regurgitation is accompanied by this peculiar condition of cardiac hypertrophy and blood pressure; nor is it difficult to comprehend the comparative absence of disabling symptoms in cases where, as at present, the alterations are very far advanced. So long as the mitral valve remains competent, the patient does not suffer passive engorgement in the lungs, the right heart, and the systemic venous system. Dropsy is, therefore, absent. So far as the heart is concerned, the stress falls immediately upon the left ventricle. In order to unload itself, both of the blood received from its auricle and that returned to it through the incompetent aortic valve, muscular hypertrophy and dilatation must occur. A slight degree of aortic regurgitation will be met by the necessary ventricular hypertrophy, and the perfect compensation thus attained will often be maintained for years, the patient perhaps remaining quite unconscious of the defect, provided the alterations at the valvular orifice remain at a standstill. You will, probably, remember an elderly man who was lately in our wards. He was quite unconscious of any cardiac defect, but in the course of his examination a well-marked regurgitant aortic murmur was detected, In him the pulse characters of aortic incompetence were absent, and the cardiac hypertrophy was scarcely noticeable. Perfect compensation being present, the equilibrium was maintained. Another example of aortic regurgitation without pronounced hypertrophy was in a Maltese sailor whom I had before you last winter (see THE MEDICAL NEWS, January 31, 1885). He had the large white kidney and shortly afterwards died from its effects. At the necropsy, his aortic valve was found to be perfectly healthy, and the cause of the regurgitation was a broad plate of atheroma just at and above the sinuses of Valsalva, productive of a purely relative insufficiency.

No such unobtrusive course can be hoped for in the patients before us. Here the heart has had to increase its capacity, both for storage of blood and for overcoming the obstacles that impede its work. As yet dilatation has not outstripped hypertrophy and, handicapped as it is, the heart fairly does its task. In pronounced insufficiency with ventricular hypertrophy, characteristic effects are to be noticed in the vascular system in front. To overcome the effects of the backward flow from the aorta, the heart, with its mighty contraction, sends the increased volume of blood far into the arterial system in a great wave. Normally, the elasticity and muscularity of the vessels squeeze this fluid and force it backward and forward in the directions of least resistance. The backward wave swings together the cusps of the aortic valve. The blood now finding exit by a forward movement, pours along toward the capillaries, filling the vessels as they contract upon it. But if the backward flow continue through an insufficient valve, the contracting arteries empty themselves with a bound, their contents escaping in both directions. To overcome the effects of the regurgitation, the power of the heart is increased by muscular hypertrophy and the blood wave is sent far beyond the limits where the smallest arteries should exert a constant pressure upon a steadily flowing stream, into the capillaries, and sometimes even into the veins. Despite the powerful contraction of the heart and the overfilling of the larger arteries, the reflow into the ventricle is often the cause of a capillary anæmia that may even induce faintness. This anæmia is partially compensated for by increased frequency of the pulse which may always be observed in aortic regurgitation with ventricular hypertrophy, as in our present cases. We explain, then, the hypertrophy, the arterial dilatation, the pulse shock, and sudden collapse in our cases; but we have not accounted for the loud systolic basic murmur in each. It may be due to aortic stenosis, yet a moment's consideration shows that, if this be so, the narrowing is relative, not absolute. In both cases the character of the heartbeat and of the pulse makes it evident that an abnormally large volume of blood passes into the aorta. The orifice is surely not narrower than in health. The murmur may be caused by the stream of blood passing over rigid and roughened structures at the orifice. But there is, in my opinion, a more probable explanation of the murmur, which is that it arises along with the systolic thrill, present in each case, in the dilated aorta; for these signs are known to accompany aortic dilatation, which we know to be present, while besides the bruit there there is no other sign of aortic obstructive disease.

We have seen that aortic regurgitation when not progressive, finds compensation in cardiac hypertrophy and may allow years of useful and comfortable life to its bearer. But no case, however mild, entitles the attendant to give a favorable prognosis. In even slight degrees of aortic regurgitation, dilatation of the left ventricle may suddenly become excessive, and death ensue from heart paralysis. Sudden death is more apt to occur in aortic incompetence than in any other form of valvular disease. Yet each of these men proves to us that a more tolerable degree of comfort is possible in this form of cardiac disorder than when the mitral valve is affected. But it not uncommonly happens that, yielding to the increased strain thrown upon it, and through the widening of the auriculo-ventricular orifice by the dilatation of the ventricle the mitral valve may likewise become incompetent, and vastly augment the patient's suffering. Here is an example of this:

Case III.—H., an Irish laborer about 35 years old, had rheumatism and heart trouble when a youth. His recovery was tedious, but seemed finally perfect and he was able to do ordinary laboring work. About a year ago he began to have dyspnœa, palpitations, chest pains, etc., and three months ago anasarca developed. He was much exposed, got decidedly worse, and was at length admitted to our wards. He complains of dyspnœa, pain in the chest, in the epigastric and hypo-

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chondriac regions, and of inability to sleep except in the sitting posture. There are general anasarca, lividity of countenance, and great distress. All the symptoms of great cardiac hypertrophy, of aortic regurgitation, and of dilatation of the aorta and great arteries are present and are readily recognized. The regurgitant murmur is quite musical. But a pronounced mitral regurgitant murmur accounts for several important symptoms that our first patients are without. We find here right-sided hydrothorax reaching to the angle of the scapula, and some pulmonary œdema. There is pain in the hepatic region, and there is dulness in the nipple line reaching two finger-breadths below the border of the ribs. The splenic area is also slightly increased. Albuminuria is not a constant symptom, but to-day it is present. Here we have the evils of passive hyperæmia added to those of aortic disease. The left auricle becomes engorged, as do the pulmonary veins and the lungs. This engorgement extends through the pulmonary artery and right heart to the systemic veins and produces passive hyperæmia of the liver, spleen, kidneys, and of the whole venous system with consequent dropsy.

The result of pumping an increased volume of blood with increased force into the aorta tends, as we have seen, to produce dilatation of this vessel and other larger arteries. This may lead to aneurism or its simulation, as in the patient I now show you.

Case IV.—M. is a fresco-painter, twenty-seven years old, and unmarried. Four years ago he was severely injured by a fall from a height, breaking several ribs, etc. Since then he has not been well and has had much pain in the chest. He has been told by eminent authority that he has aortic aneurism. He is a well-built man, but is pallid, and has a distressed expression. He denies syphilis, rheumatism, and alcoholism, but is a victim to the morphia habit, as the scars of countless hypodermatic injections testify. As he sits before you his trunk and head are seen to vibrate with each heart-beat. A heaving motion can be seen over the whole præcordial region. The pulsations of the large arteries of the neck, head, and upper extremities are seen to be violent. A strong pulse is visible in the suprasternal notch. The heart area is increased, and the præcordial region projects. The apex beat is well outside the nipple line in the sixth interspace. There is relative dulness in the upper sternal region, but no increased resistance to the percussing finger. There is no tumor nor circumscribed dulness. Behind the sternal notch one feels an expansile pulse, but the distended vessel is thin walled. The hand placed flat over the first and second interspaces to the right of the sternum perceives a systolic thrill. The heart-beat is heavy and forcible. Upon compressing the thorax in its antero-posterior diameter, there is felt no pulsation separable from the diffused thoracic upheaval. Corrigan's pulse is fairly marked. The radials beat synchronously and in about equal volume. The carotids beat violently and with marked expansion. The femorals pulsate with a violent shock synchronously with the radials.

Over the apex a loud systolic and diastolic murmur is heard. The valve sound cannot be distinguished, and a mitral systolic murmur is clearly present; as the base is approached these bruits become louder, until they are most intense over the first and second interspaces and manubrium. They are heard everywhere over the chest in front, and the tricuspid and pulmonary sounds cannot be separated with satisfaction. There is no simulation of two pulsating centres within the chest so characteristic of aortic aneurism; no shock except that clearly due to the heart's impulse. Both carotids give a pronounced systolic and diastolic murmur. Even in the femorals a systolic bruit can be heard. There is no inequality of the pupils to suggest pressure upon the intrathoracic fibres of the sympathetic going to the iris; the voice is not notably modified. He says he has dysphagia, but those about him assert that he swallows the ordinary solid diet of the hospital without difficulty. He has no cough nor respiratory disorder. The great veins are not compressed. He complains of violent paroxysmal pain in the chest radiating to the shoulder and finger-tips. There is no expectoration; the abdominal organs are not enlarged. There is no albuminuria; anasarca is not present, but he claims to have had it some time since. Our patient is well posted upon the subject of aneurism, and details sensations and signs symptomatic of that disorder. Indeed, he uses his afflictions as his stock-in-trade, and counts upon larger doses of morphia in proportion to the clinical and pathological interest he excites.

Has he aneurism? Let us first consider the negative signs. There is no tumor; no circumscribed thoracic dulness nor pulsation; no simulation of double heart sounds within the thorax; no shock separable from the diffused cardiac upheaval. There is, apparently, no difference in the radial pulses, certainly none in the carotids. The "water-hammer" pulse is maintained; the femoral pulse is very forcible and synchronous with that of the radials; over the carotids a strong double murmur is audible, while a systolic bruit is heard as far as the femorals. There are no signs of pressure except subjectively. On the other hand, there is the expansile pulse in the suprasternal notch, behind which the fingers may feel the distention of the vessel; but the same expansile pulse may be felt over either carotid, and if you compare this man with the first two examined, in whom there is certainly no aneurism, the same pulsations will be perceived. Added to this are the sensations pointing toward aneurism, but we know our patient to be very mendacious. Under observation his sufferings, as described, are not apparent. It is true that had we not characteristic signs of aortic valvular disease, with its consequent cardiac hypertrophy and train of circulatory disorders, a diagnosis of thoracic aneurism might become justifiable; but since we have these, it is maintained that the vascular symptoms are those of dilatation simply, a dilatation that is not unfrequently observed where the cardiac lesions in question are pronounced, and involving not only the aorta, but the innominate, subclavians, carotids as well.

All of these patients present unusually severe grades of cardiac disease. They have reached that point in their lives when their hearts, hypertrophied, as they are, are no longer able to bear efficiently their burden of increased effort. All the energy of their bodies seems to be concentrated upon the task of surmounting the obstacles to the circulation. It is not possible, however, for us to say how long these conditions will continue. While the danger of sudden death is greater in aortic regurgitation from over-distention and paralysis of the

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left ventricle, we know that the distress and disability are far less than in disorders of the mitral valve when the effects of pulmonary and venous engorgement become developed. Indeed, even now B. is about to seek some light employment. (The sphygmographic tracings shown are the results of complex conditions, and fail to afford features characteriststic of aortic disease simply; their proper study would demand more time than we have at our disposal to-day.)

What can we do for our patients? The damage already done we cannot repair. In two cases rheumatism excited the valvular disease. We are reminded, then, that each renewed attack of rheumatism wil increase the danger of fresh cardiac disorder. The exciting causes of this disease must, therefore, be reduced to a minimum. Proper food, clothing, shelter must be provided. The machinery of life must be protected from the friction that wears it away. All the functions should receive the attention that will encourage their easy performance. Beyond this interference is noxious in very many cases. Those in which valvular defects are met by corresponding hypertrophy find no relief in more active treatment. When the heart appears to become unduly excited, even for its increased responsibility, mild sedatives may be employed, and rest enjoined. Saline cathartics have frequently been beneficial. Cardiac stimulants, real and so-called, usually do harm. They are not called for until the heart becomes enfeebled, until dilatation outstrips hypertrophy, as in advanced cases, or when mitral insufficiency becomes superadded. Digitalis now often produces marvellous results, regulating and strengthening the enfeebled heart, and promoting the secretion of urine. Indications for its use were present in our third case, and we already see marked improvement under the administration of half-ounce doses of the infusion every fourth hour. This improvement will prove, of course, only temporary, but it may endure and make life tolerable for months. Caffein, lily of the valley, and other cardiac stimulants, may be used for the purposes indicated, but will so constantly prove less efficacious than digitalis that we cannot hope that they will supplant it. Arsenic is supposed by some to exert a favorable influence in aortic incompetence (Bramwell). Anodynes, internally and externally administered, will often be necessary to alleviate pain and discomfort.

ORIGINAL ARTICLES.

THE EXTERNAL THERAPEUTICS OF PULMONARY CONSUMPTION; A RETROSPECT OF TWENTY CASES TREATED BY THIS METHOD.

BY THOMAS J. MAYS, M.D.,
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FOURTH PAPER.[1]

IN offering a new method, or rather an old method under a new aspect for the treatment of pulmonary consumption, I do not claim for it infallibility, nor do I propose it to the exclusion of other forms of treatment which are useful; but merely on account of the belief that it is able to show superior practical results to any plan which has been heretofore advocated; therefore, I hope it will not be taken amiss when I undertake to follow in the footsteps of some of my illustrious brethren and take a survey of some of the operations and products of the external method of treatment in this disease.

In my three former communications on this subject I embodied twenty cases in the various stages of pulmonary consumption, with a view to illustrate the practical workings of this method of treatment. In this paper I shall, in the first place, give an analytical table of the whole number of cases—citing the number in the different stages when they came under treatment, together with the result of treatment, whether it ended in recovery, in improvement only, or in death; and then give a condensed résumé of each case as far as necessary to the full elucidation of the object of the paper. The cases are not subdivided into the different varieties of the disease, but are classified under the one broad title of pulmonary consumption, merely because, in a large number of cases, the landmarks which divide one variety from the other are too faint to allow a distinction; nor is it necessary to designate more than the first and third stages in order to grade the severity of the disease, because the second is, at all events, a passing or a transient stage, and is never sharply defined from the first and third:

	Number.	Per cent.
Patients reported	20	
" in first stage	12	60
" in third stage	8	40
" in first stage recovered	12	60
" in first stage recovered, relapsed, but restored again	1	5
" in third stage recovered	5	25
" in third stage died	2	10
" in third stage improved, but will die	1	5
Whole number of patients who recovered, excluding the case which relapsed but which was subsequently restored, as well as the one which improved, but which will die	16	80

CASE I. (*Case I., Series 1*) was in the first stage of pulmonary consumption and came under my care in May, 1879. She then had a cough and profuse expectoration streaked with blood since the previous August. She had hæmoptysis two months before. She had chills and night-sweats, lost in flesh, poor appetite, but bowels and menses were regular. Physical signs were diminished percussion resonance, and crepitation over left apex. She was treated for one month with the external method, when she was restored. She afterwards married, became the mother of a family, and, as far as I know, is well at present.

CASE II. (*Case II., Series 1*) was first seen in March, 1879, in the following condition: loss of sleep, constant cough, profuse expectoration, night-sweats, poor appetite, coated tongue, irregular bowels, and losing flesh rapidly, no hæmoptysis, lost a brother with consumption. *Physical signs:* Dulness, and crepitation in upper two-thirds of left lung. He made a good recovery and is now well and working every day, although a small cavity formed in the middle third of the lung during the treatment.

CASE III. (*Case III., Series 1*) came under treatment in November, 1880. He had a cough, expec-

[1] The first and third papers appeared in THE MEDICAL NEWS for March 8, 1884, and August 22, 1885, and the second appeared in *The Therapeutic Gazette* for June, 1885.

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toration streaked with blood, stitches in left apex, night-sweats, wasting, and poor appetite. *Physical signs:* Diminished percussion resonance, crepitation and wavy respiration in left apex. He made a good recovery, married afterwards, and became father of a small family. He lost a brother from the same disease.

CASE IV. (*Case IV., Series 1*) became my patient in July, 1883, when she had a cough, chills, lost flesh, poor appetite, no hæmoptysis, weight 100½ pounds. Her father's mother and sister, and her mother's sister died of consumption. She lost a brother at the age of eighteen from some form of lung trouble. *Physical signs:* Dulness over left apex, as well as crepitation. She improved under the treatment, weighed 109 pounds the following 7th of September, and is doing well at present writing

CASE V. (*Case V., Series 1*).—This patient, a boy four and a half years old, was in the third stage when I first saw him in July, 1883. The disease involved nearly the whole of the left lung. There was a cavity in the apex, cavernous râles in the middle, and complete absence of respiration at the base. Weight, 30½ pounds. An uncle of the boy's died of phthisis ten years before. He made a slow recovery, and in the following December weighed 40 pounds. Doing well at present.

CASE VI. (*Case VI., Series 1*) was in the third stage when she came under treatment in August, 1883. She had copious hæmoptysis, lost flesh rapidly, and had a poor appetite, but no hereditary history of the disease. *Physical signs:* Depression and tympanitic sound between clavicle and mammary region on right side, mucous râles at base. Coarse mucous râles also distributed over posterior base and interscapular region of left lung. When the treatment was commenced she weighed 102½ pounds, and in a little more than a month she gained 9½ pounds. She is well now.

CASE VII. (*Case VII., Series 1*).—This is one of the cases which illustrate the value of employing forms of the external treatment which vary in their strength. For it is shown here that when the milder forms of external stimulation, like the flaxseed poultices, have lost their hold on the disease, the more powerful ones, like the steam jacket, will control it again. This patient was ill since June, 1883, but treatment began last of September, 1883, when he had profuse hæmoptysis, poor appetite, was greatly emaciated, and had a family history of the disease. He was in the third stage, and weighed 133 pounds. *Physical signs:* Tympanitic sound over left apex, both anterior and posterior, with slight dulness over third rib. Cavernous and mucous sounds over same region, with a border of crepitation at its lower limit. Prolonged expiration in right apex. He began to improve under the flaxseed poultices, and on October 21st only very few moist râles were audible anywhere in his chest. The cavity became very nearly dry, and his physical condition had improved a good deal; but a few days after this date tubular breathing and moist râles developed in lower half of left lung, over which the poultices had no influence, and he went from bad to worse until November 20th, when his physical condition was as follows: Large cavity in left apex with tubular breathing and mucous râles from lower limit of cavity to base of left lung. Small cavity in right apex, too. I now placed on him the more powerful tin-metal steam-jacket, and by last of following January the moist râles had entirely disappeared from both of his lungs, as well as the tubular breathing, and he had improved again, and at this time he weighed 136½ pounds. In a case where there is such extensive excavation no results of great importance can be expected, when there is no permanent improvement in the appetite. He remained in this state for awhile, but sank and died in the spring of the present year.

CASE VIII. (*Case VII., Series 1*).—This patient came under observation in August 1, 1883, with a great deal of cough, profuse expectoration of dark green color and streaked with blood, no hæmoptysis, night sweats or chills, but hoarseness and a great deal of pain in laryngeal region. He was in the third stage, but had no family history of consumption. Weight 128¾ pounds. *Physical signs:* Left side, tympanitic resonance from apex to nipple, and flatness from here to base. Cavernous sounds from clavicle to nipple, and complete absence of respiration over region of flatness, anteriorly, posteriorly, and laterally. Right lung normal. He steadily improved under the use of the flaxseed poultice, both in symptoms and in physical signs, until August 29th, when he weighed 135½ pounds. The external treatment then lost its influence and he became slightly reduced. The poultice was discontinued on December 9th, and the steam jacket applied. At this time his weight had sunk to 133½ pounds, and his physical condition was about the same as at the time of the last examination, excepting a wavy respiration in upper third of the anterior portion of right lung, as well as broncho-vesicular respiration at base, posteriorly and laterally of same side. After the application of the steam jacket he began to mend. The left lung became permeable, and a few moist and sibilant râles began to manifest themselves in the right base where before was heard broncho-vesicular respiration. All the râles disappeared in the right lung, as well as the wavy respiration, the cavity on the left side became dry, the lower part of same lung resumed its respiratory function in a moderate degree, and the patient, in April, 1884, weighed 137 pounds. He is well at present.

CASE IX. (*Case IX., Series 1*) was first seen in the middle of January, 1884, when he suffered from cough, hæmoptysis, night-sweats, poor appetite and vomiting. *Physical signs:* Impaired percussion resonance and crepitation in right apex. Under the external treatment he began to improve, but he subsequently had a relapse and a cavity formed under the right clavicle. I lost sight of him for nearly a year, but from last accounts he was alive, but not well. He will in all probability die. He was a pauper, and, therefore, very frequently suffered for the necessary supplies of life, and altogether his hygienic as well as other influences offered but little prospect for permanent relief.

CASE X. (*Case I., Series 2*) was in the first stage of the disease with hereditary tendencies when treatment was begun in January, 1884. He had a cough

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with copious expectoration and hæmoptysis. *Physical signs:* Percussion dulness and crepitation in left apex. Under the external treatment the affection entirely disappeared in less than a month and a half, although he was an old man.

CASE XI. (*Case II., Series 2*).—This patient had a strong hereditary taint and a most unpromising local and general condition when she began the treatment in August, 1884. She had frequent hemorrhages, was very much emaciated (weight 99½ pounds), had a poor appetite, irregular bowels, night-sweats, chills, and fever (temperature 39⅘°), hoarseness, and much pain in the larynx which extended to both ears. *Physical signs:* Barrel-shaped chest, with depression below both clavicles, cavity sounds in left apex, dulness, crepitation and cavernous râles in upper half of left lung. After being treated about three weeks she improved in her symptoms and physical signs. She slept better, coughed and expectorated less, appetite very good, and the evening temperature was but slightly above the normal. At this time there were no moist sounds or crepitation audible in any part of her chest. She remained so until the following December when her throat and chest symptoms became aggravated, and she took a relapse, and died the same month.

CASE XII. (*Case III., Series 2*).—This patient was what may be termed in the second stage when he was placed under treatment, in January, 1885. He coughed, and his expectoration was yellow and blood-streaked, had chills and fever, night-sweats, poor appetite, and irregular bowels. *Physical signs:* Dulness on percussion in right apex, cavernous râles directly beneath right clavicle, and mucous râles from there to third rib anteriorly. Bronchial respiration over posterior aspect of apex extending to spine of scapula. In the course of six weeks' treatment the moist râles had disappeared, a small cavity was present beneath the clavicle, and his appetite was good, and general appearance much improved. When last seen (during present summer), he was doing very well.

CASE XIII. (*Case IV., Series 2*).—This patient came under observation December 5, 1884, and was in the first stage. She had a severe cough, yellow expectoration, hæmoptysis, poor appetite, and night-sweats, and was losing flesh. She was treated with various tonics, among which were the hypophosphites, iron, cod-liver oil, etc., without avail until January 13, 1885, when the flaxseed poultice was applied to her chest. She then showed the following physical signs: Dulness and increased vocal fremitus and resonance over right apex. No crepitation, but bronchial respiration over same region posteriorly and mucous râles anteriorly. March 5th, her chest was free from râles and on April 2d she was able to do her own housework, to which she was not able to attend for six months previously. At present writing she continues well.

CASE XIV. (*Case V., Series 2*).—This patient came under treatment in February, 1885, and was in the first stage. He had a rickety, pigeon-shaped chest, with a deep retraction of the lower end of the sternum. He had a number of copious hemorrhages, was losing flesh rapidly, with dulness and crepitation in right apex, and altogether a most unfavorable outlook. Bleeding ceased, and he began to improve immediately after the application of the poultice. On March 9th crepitation had disappeared, and on April 8th his chest was clear of all abnormal physical signs except a slight diminished resonance and a coarse vesicular sound in right apex, and he went to work at his trade. He continued well until July, when he had a relapse. Hæmoptysis and crepitation reappeared in the same lung, which were checked the second time by the poultice, and at present feels better, but still weak.

CASE XV. (*Case I., Series 3*).—This case was first seen in May, 1885. He was in the first stage of catarrhal basic pneumonia of the left lung, which was characterized by dulness, crepitation, bronchial respiration, and moist râles. Under the rigid application of the poultice for three weeks the râles all disappeared, but some impairment of percussion resonance remained. At present the left lung has a feeble respiration, no râles, and the patient is eating well and gaining in weight.

CASE XVI. (*Case II., Series 3*) was first seen in April, 1885, and was advised various remedies without any benefit. On May 6th the poultice was applied when he presented the following physical signs: Dulness, bronchial respiration, and crepitation over right apex. On June 2d crepitation had entirely disappeared, and bronchial breathing and dulness were much less marked. From last accounts he is doing well, and has gone to work.

CASE XVII. (*Case III., Series 3*).—This patient came under my observation May 18, 1885. She had a cough, yellow expectoration, hæmoptysis, and says that she is the only surviving member of a family of eleven children, all the rest having died of consumption. She had dulness in the left apex extending to second intercostal space in front, and to spine of scapula behind, with marked crepitation in supraclavicular region. She was placed under treatment the same day, and on June 9th crepitation had subsided, and the dulness was less marked. On June 18th hardly a trace of the disease remained, and she continues to feel well up to the present time.

CASE XVIII. (*Case IV., Series 3*) was placed under the external treatment June 2, 1885, when she manifested the following symptoms and physical signs: Constant cough, worst at night, yellow expectoration, night-sweats, chills and fever, losing in flesh, and no appetite. Dulness in left apex, prolonged expiration posteriorly, and wavy respiration anteriorly over same region. On June 16th the dulness had perceptibly diminished, the wavy respiration had disappeared from the front, and in a month more she was well.

CASE XIX. (*Case V., Series 3*) was in the following condition when he was placed under the external treatment on May 6, 1883: Cough, blood-streaked yellow expectoration, losing flesh, chills, and no appetite. Dulness in right apex, and crepitation in supraclavicular region. On June 2d he felt much better, had no more blood-streaked expectoration, and the crepitation was replaced by a prolonged expiration and roughened inspiration. On June 9th very little evidence of any abnormal signs existed. Good recovery.

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CASE XX. (*Case VI., Series 3*) presented the following conditions on June 18, 1885, when the external treatment was applied: constant cough, dark greenish expectoration, hæmoptysis, dulness and prolonged expiration over right apex. She improved markedly both in symptoms and physical signs, and when last heard from she was doing well.

Estimation of Therapeutic Results.—In forming an opinion of the value of any therapeutic method or agent it is necessary to possess at least an approximate idea of the physical condition of the body before and after treatment is instituted. To obtain accurate data for this purpose is not always an easy task and sometimes impossible. Happily, however, it can be said that this is not generally true of chest diseases. Here we have physical signs which unfailingly characterize and represent the actual conditions in the underlying organs, and by comparing these as they manifest themselves before, during, and after treatment they furnish us an infallible index in regard to the progress or the retrocession of the disease. Moreover, it is not essential to the success of a certain line of treatment that every case under it should have a favorable ultimate termination. If it can only be shown that it has the power to deflect the disease by moderating and improving the physical signs, then we are warranted in believing that it is indicated, and justified in advocating its usefulness.

In estimating the value of the external method of treatment in pulmonary consumption reference will be made here to the analytical table given on a former page. Of the twenty cases reported there was not a single case which did not at some time during treatment manifest some improvement as indicated by a change in the physical signs, and in an amelioration of the symptoms, while five out of the eight cases in the third stage made what is believed to be a good recovery. Two, in this stage, died, and the other one will probably die within the present year. Out of the twelve in the first stage, all but one made a good recovery, and he was at least partly restored by the same method after his relapse (Case XIV.). The length of time which elapsed since the cessation of the treatment of these patients which are restored varies considerably. Of the five patients in the third stage who recovered one is well six years, one two years, one one year, and the rest for periods varying from two to six months since treatment was suspended. One case (XIV.) in the first stage relapsed in five months after he was free from the first attack. He subsequently improved again. Cases VII. and XI. died, and Case IX. will in all probability die. All of these cases were in the third stage.

It may be urged that in many of the cases reported there has not elapsed a sufficient length of time since the treatment ceased to pass judgment on the ultimate prospects of these patients. This is true enough in some instances, and the objection would have some degree of relevancy were the aim here to prove the proposition that once well, always well, but manifestly the principal desire is to obtain a just estimate of the immediate products of the treatment. It must not be forgotten, however, in making up this result, that the time since the recovery of the five cases in the third stage ranges from two to six years, while the time since the restoration of four out of twelve in the first stage varies from one to six years, and since the condition of those cases of more recent duration is just as favorable as, and in some instances more so, than that of the older cases, there is every reason to believe that their outlook is just as good.

Influence of the External Method on Hæmoptysis.—Contrary to the belief that cold is a sovereign remedy as a styptic, the application of heat in the form of hot water has lately attained prominent rank in surgery as a hæmostatic. It will prove itself equally efficient in pulmonary hemorrhage. Case XIV. especially illustrates its efficiency in this respect, This patient had copious bleeding from the lungs, and after other remedies failed to stop it, a hot flaxseed poultice produced immediate beneficial results, and the hemorrhage gradually subsided under its influence. The relapse which he experienced was ushered in by a severe hæmoptysis, and was likewise promptly relieved by a hot poultice. This case is only a type of some others that came under my notice, and I can safely say that in my whole experience with the external application of heat in this disease I never knew it to aggravate the hemorrhagic tendency.

Its Influence on Cough and Expectoration.—It is almost an invariable experience that after the patient has been well poulticed for a few days he "coughs easier and to better effect." The cough which has been tight before becomes more free and the patient coughs up the offending sputum with greater ease. Longer intervals of rest will therefore occur between the coughing spells and the patient obtains relief and economizes his strength from this source alone. The great degree of quietude derived from the poultice is not only of importance during the day, but is doubly so during the night, for it protects the patient from the harassing cough so incidental to this disease during the sleeping portion of the twenty-four hours. Then again the pleuritic stitches which are so common in this disease are often very readily relieved by the local application. After a short course of poulticing they frequently express themselves that they are able to breathe more freely and deeper than before.

Its Influence on the Digestive Organs.—Whatever means or methods are pursued to improve the local condition of the consumptive patient, it must not be forgotten that the ultimate triumph of the treatment depends on the condition of the digestive organs, and on the power of the body to assimilate food. If even the lung difficulty becomes better, there cannot possibly be a constancy in its duration, unless the stomach is able to partake and digest food sufficient to sustain and build up the shattered constitution. Very often the digestive derangement depends in a large measure on the pulmonary disorder, and in such cases it is self-evident that diminution of the latter will be followed by improvement in the former. Therefore it is always a favorable omen if the patient begins to eat more and relishes his food better than he did before treatment. Most of the patients here reported, experienced a favorable change in this direction,—the change was most marked in those in the early stage of the disease.

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Influence of Internal Medication.—It may naturally be supposed that the results here recorded are in a great measure due to the influence of cod-liver oil and the hypophosphites, which are generally regarded as having a specific action in this disease. While it is true that in some cases they were administered, and in a general way had a good effect, it is also true that in most of the cases they were discarded, and that in some which terminated favorably the oil positively disagreed. These supposed specifics are admirable in their action, but should never be persevered in when they disagree with the patient, or when they can be supplanted by more efficient agents. Considerable time is often wasted in entertaining wild expectations as to the possibilities of these agents; experience teaches, however, that the physician who administers them with a view of having an action on the local process, other than that which arises from the influence of an improved general condition, will be sorely disappointed.

The Possibilities of External Therapeutics.—The external treatment of pulmonary consumption thus far described assumes importance not only on account of its efficiency, but also on account of the economy which can be practised in regard to the administration of medicinal agents through the stomach. All who have had experience in treating this class of patients will readily admit that the less the digestive organs are used for the purpose of introducing medicines into the system the better for the patient. But the method of applying heat to the chest externally does not by any means exhaust the *armamentarium* of the external treatment in this disease. Other forms of external treatment have been recommended or introduced. Thus Bühl,[1] in speaking of the therapeutics of pulmonary consumption, says (p. 161), "There still remains a wide field for the employment of a rational therapeusis. I would particularly call your attention to the use of external irritation of the skin. This may be by moist or dry friction, and should last a very short time, from half to one minute, or we may employ spirits instead. I would also recommend in some cases the application of a greater amount of heat, as by cloths dipped in oil, or compresses wet in tepid water, and covered with gutta-percha, or the latter substance alone. And, again, Dr. T. Henry Green, in his lectures delivered in the Brompton Hospital for Consumption, in London, says[2] (p. 102), "That in these last named cases (cases where much intra-alveolar matter exists which is capable of removal) attempts to stimulate the circulation in the diseased lungs by cold douches and friction, and other similar means, such as have been recently advocated by Dr. A. von Sokolowski, would appear to me to be more in accordance with the teaching of pathology." The treatment here alluded to is fully detailed by Dr. von Sokolowski in the *Berliner klinische Wochenschrift*, Nos. 39, 40, and 44, for 1876, and consists in rubbing the body, in exercising in fresh air, and in cold douches, either in the form of a spray or of a stream of water. The patient is directed to take a brisk walk, or to have his whole body well rubbed with a coarse, dry towel, in order to excite the cutaneous circulation. Then he is subjected to a cold douche for only four or five seconds at the outset, after which he is hurriedly rubbed dry, dressed, and enjoined to take another active walk in the fresh, open air for at least thirty minutes. If the patient is not able to take the required exercise, he is thoroughly rubbed, and walks as much as he can. In those patients for whom this plan of treatment was suited the most satisfactory results were obtained, and it is certainly well worthy of imitation whenever practicable. It is noteworthy that the friction, the external application of cold, as well as of heat, have all a common therapeutic object in view, viz., that of stimulating or of exciting the affected lung structure and its surroundings, and thereby hasten the process of resolution and resorption of the infiltrated products.

In my first paper on this subject I spoke of *massage* as another useful form of external treatment in pulmonary consumption, and since then I have had further experience with it and find no reason to change my favorable views there expressed. If it is performed properly by a person who has some knowledge of the gross anatomy of the body, its physiological and therapeutic effects become apparent at once. Experiments on the lower animals abundantly prove that massage not only accelerates the motion of the fluids of the body, like the blood and lymph, but that it also serves to stimulate and enhance the function of the nervous system. In this passive manner it invigorates the process of tissue metamorphosis, restores the appetite, and builds up the body. The whole body must be massaged once or twice a day, and no fever or any other condition of the body contraindicates its use throughout the course of the disease. This, then, is another useful adjunct to the external method of treating pulmonary consumption, and should be employed whenever possible.

Prevention of Recurrence.—The greatest *desideratum* in the management of the consumptive class is to make the results of successful treatment permanent and enduring. This, of course, is a question which is beset with many difficulties, and to treat it properly implies a dissertation on the influence of foods, of clothing, of shelter, of exercise, etc.; but one of the chief dangers which confronts people with consumptive tendencies lies in the sudden temperature changes incidental to our northern climate, especially along streams and rivers, where the atmosphere is additionally contaminated by a superabundant humidity. Persons of this class generally have a relaxed capillary circulation of the whole body, and especially of the skin, and are therefore extremely sensitive to the slightest changes in the atmospheric temperature. They perspire readily when it is warm, and are easily chilled when it becomes cool. This liability to sudden oscillations in the capillary circulation of the external and internal coverings of the body constantly exposes them to a liability of inflammatory troubles of the throat and of the respiratory passages, and of course to a recurrence of another attack. Such a body is, therefore, out of harmony

[1] Inflammation of the Lungs, Tuberculosis, and Consumption, by Dr. Ludwig Bühl. G. P. Putnam's Sons, 1874, New York.

[2] Pathology of Pulmonary Consumption, by T. Henry Green. Henry Renshaw, London, 1878.

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with its environment, and the great object here is to bring it back to its former normal relation. One way to accomplish this, in a measure at least, is to order such people to accustom their bodies, or their extremities only, to cold spongings or baths. They begin the procedure by only bathing the lower extremities for a week or ten days, and then gradually extend to the arms and the body. The parts to be bathed are first briskly rubbed with a dry, coarse towel, then bathed or sponged with cold water; and afterwards rubbed thoroughly again, and then the patient is allowed to take exercise, or to go to bed. This process is repeated morning and evening, or at least once a day, and that in the morning after breakfast. In this manner a natural reaction of the body is brought into play which enables it to resist and throw off the effects of the deleterious temperature changes.

In addition to this the body must be clothed seasonably, and well fed, and the patient be advised to spend as much time as possible in the open air, and thoroughly practise the art of taking deep inspirations with the mouth closed. This can be done very systematically, while he is walking in the open air, by being taught to inspire once for every eight or ten steps, and also expire once for the same number. The swinging of dumb-bells will materially assist in expanding the lungs and chest-walls. In this way the chest or respiratory muscles will be strengthened, the pulmonary circulation increased; and the apices, which are probably in a semi-atelectatic condition, will be more thoroughly inflated, and the tendency to the accumulation of catarrhal products in this portion of the respiratory surface avoided.

Hospital versus Home Treatment.—There can be no doubt that the clinical results which are obtained in hospitals erected and arranged specially for the treatment of pulmonary diseases are superior to those derived from home treatment. This, I am convinced, is true of institutions like those of Gerbersdorf and Falkenstein in Germany, and also of similar ones in England. And why should this not be so? Why should not an institution that is erected in accordance with the most approved ideas of ventilation, of heating, of drainage, and with every other appliance particularly adapted for the treatment of this class of cases give better satisfaction than a building where very few or perhaps none of these requisite conditions exist? The kind and amount of food, as well as of drink, of light, and of exercise, the bathing, the general and special treatment, all require to be carried out methodically, and solely with a view to the greatest possible benefit of the patient, and this can only be done well under the immediate supervision of medical attendants, and in a building constructed for the purpose.

Serious objection is often made against the assemblage of many consumptive patients in one building or locality, inasmuch as it would increase the danger from infection and contagion. There is good ground to believe, however, that the risk from these sources is more imaginary than real. The statistics of the Brompton Hospital for Consumption in London, as collected by Drs. Williams and Humphreys, show that, up to the year 1883, embracing a period of thirty-six years, not a single clearly authenticated case of pulmonary consumption among all the attachés of the hospital during that time emanated from within its walls. During the whole thirty-six years there were twenty-nine physicians and assistant physicians connected with the institution, and among these occurred only a single case of phthisis, and he was tuberculous before he came to the hospital. The rest were all well. Dr. Edwards was resident physician for twenty-six years, yet he showed no sign of the disease. There were employed during the whole period one hundred and fifty clinical assistants. Of these eight died of consumption; but all, except one, were sufferers from the disease before they became connected with it, and in this one case there is doubt as to the origin of the trouble. Among the hundred and one nurses, of which there is a health record, one is suffering from a slow form of the disease, which was possibly contracted while engaged in the hospital, although she is of a tubercular predisposition. She is an old employé, and able to attend to her duties efficiently most of her time. No more positive evidence to show the non-contagiousness of phthisis could be gathered anywhere than is furnished by this large institution. Every one of the individuals associated with this hospital were almost constantly exposed to the virus of the disease, and yet there is only a single case, the source of which could be traced to contagion, and this rests largely on suspicion. Other evidence gathered from other hospitals of the same kind corroborates these statistics. That phthisis is infectious or communicable from man to man, no one, I think, cares to deny; but that it is so contagious that those affected with it require constant isolation, is not warranted by facts, and is too bald an assumption to command serious consideration.

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TWO CASES OF FRACTURE OF THE SPINE; WITH RECOVERY.

By JAMES D. STRAWBRIDGE, M.D.,
of Danville, Pa.

Some weeks since, while attending a patient near Northumberland with Dr. William B. Stoner, my attention was recalled to the following case, of which I had entirely lost sight. At a subsequent visit the patient met me at Dr. Stoner's office, where I had an opportunity to examine and satisfy myself as to the nature of the injury and its result.

Edward B., an able-bodied healthy man of medium size, about 35 years of age, employed at the lumber mills of Frick, Chamberlain & Co., at Northumberland. On May 18, 1882, having done six hours of continuous work, floating logs from the canal, through a narrow channel under the P. & E. railroad, into the sawmill pool, tired and somewhat intoxicated, he sat down to rest on the railway track, and was knocked by a passing locomotive into the pool, from which he was immediately rescued, insensible, apparently with a broken neck, and carried to his home.

A few days later, I was called in consultation by Dr. Stoner and the late Dr. Joseph Priestly, and found

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the patient on his back in bed, perfectly conscious, suffering but little, without paralysis of body or limbs, his head resting on a pillow, with the face turned strongly to the right, and without power of movement. Having diagnosticated a dislocation of the neck, a decision in favor of immediate reduction necessarily followed. Having placed the patient in a sitting posture Dr. Priestly stood behind him on the bed, and taking the head between his hands lifted steadily until the body was nearly suspended. Dr. Stoner steadied the body, while I manipulated the neck. When considerable extension of the neck had taken place, the face turned to the front and the vertebra glided easily into place, but as soon as extension was relaxed, and the head rested on the vertebra, the neck shortened and the face again turned to the right. Upon lifting the head again slowly, a fracture of the third cervical vertebra, through the bifurcation of the spinous process and through the pedicle on the left side was easily discovered. As soon as the head began to rest on the spine, or the erector muscles to contract, the smaller fragment could be felt pressed outward, while the body and right side retained their position; the axis, directed by the right articular facet, glided backward and to the left, into the vacant space, turning the head around to the right.

Having ascertained the facts, it was decided that as soon as a suitable suspension apparatus could be provided, a plaster splint should be applied to the back and sides of the neck to extend from the shoulders, up under the ears and back of the head. The splint was efficiently applied a day or two later, by Drs. Stoner and Priestly, and worn by the patient four weeks. Becoming impatient of its irksomeness the patient removed it himself, but found he could not yet do without a support for his head and had to have it reapplied. It was worn for three weeks longer and then permanently laid aside. On the 10th of July he returned to his work, and has never since experienced any inconvenience from the injury.

While writing the above, the following case, of which I had no memoranda, seeming worthy of record in this connection, I have obtained the necessary data from the patient himself and the attending physician.

In February, 1867, John M., a robust, healthy man of not over 30 years of age, engaged in mining iron ore, was coming up out of the mine, and seated himself on the front end of an empty car which was being drawn up the slope. The roof of the mine was very low, compelling him to sit bent forward with his head down, but incautiously rising a little, he was caught on the back of his neck and shoulders by one of the roof timbers, which doubled the body on itself, and as the car advanced dropped him backward into it, a crushed and helpless mass. On reaching the surface he was taken out insensible and carried home.

A week after the accident I was called to see him with Dr. B. F. Shultz, of Danville, his attending physician. I found the lower half of the body and extremities paralyzed, the bodies of the seventh, eighth, and ninth dorsal vertebræ were crushed into each other, and sixth and the tenth injured. The heads of the eighth, ninth, and tenth ribs were dislocated on the right side, and the ninth and tenth on the left. The spine from the sixth to the tenth vertebra projected, forming a curve of nearly a semicircle. In this condition he was being moved about in the bed, and raised up when necessary to void his feces, the urine being drawn with a catheter. The attendants were made to understand that he could not be raised up or moved about in bed, and that his only hope for recovery was through maintaining absolute immobility of the spine.

A strong frame was prepared with canvas stretched on it. On this a mattress was fitted with a cavity to receive the curve of the spine; pads were placed on each side so as to keep up a moderate pressure on the necks of the dislocated ribs. A trap was made through the mattress, and canvas for removal of the discharges. On this the patient was kept in a horizontal position for thirteen weeks, without other movement than that of being turned slightly to one or the other side to adjust the pads and to cleanse and protect the skin. By that time paralysis had entirely disappeared, the bladder and bowels had regularly resumed their functions, and the bodies of the injured vertebræ appeared to be solidly united. The patient was then allowed to change his position, and soon after to sit up.

At the end of the fifth month he was out of doors walking about apparently well. He has not since suffered from any spinal trouble, has been, and is now a healthy man. He is somewhat reduced in stature, has a very marked projection of the dorsal spine, and a very stiff back.

MEDICAL PROGRESS.

THE MODIFICATION OF MERCURY COMPOUNDS IN THE ANIMAL ORGANISM.—DR. RICHARD FLEISCHER, in a study of the modification undergone by preparations of mercury in the animal economy, adduces the following facts as the results of his experiments:

1. Calomel, which in pure water is insoluble, in the presence of chloride of sodium is dissolved, and transformed into the bichloride of mercury.

2. The formation of mercuric chloride is favored by a high temperature, *i. e.*, the temperature of the body.

3. The amount of mercuric chloride produced is minute, but plainly recognizable.

4. Dilute hydrochloric acid of a strength of 25 per cent. converts only a minimum portion of calomel into the bichloride. A solution of a strength of 4 per cent. is much more active.

5. By mixture of potassium iodide and calomel, iodide of mercury and potassium and metallic mercury are produced. The double salt produced is soluble in excess of potassium iodide, but separates in pure water, into the insoluble oxide of mercury and into iodide of potassium.

6. The oxide of mercury forms with chloride of sodium, corrosive sublimate and caustic soda.—*Deutsche med. Wochenschrift*, September 3, 1885.

PORRO OPERATIONS.—The fourteenth operation of this nature was performed in the Santa Caterina Maternity of Milan, by Dr. Ettore Truzzi, first assistant of Prof. Porro, on the 4th of August, the woman having a

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deformed pelvis, the result of malacosteon. On the thirtieth day after the operation the patient was well advanced in convalescence, and the child living and well. In the fourteen operations all of the children were saved. The 1st, 2d, and 9th cases were fatal to the mothers. We have then the very remarkable result of 11 women and 14 children saved under 14 operations by five operators. The last 11 operations were fatal in but one instance, Prof. Porro himself being the operator. The Müller method was performed in case 2, which was one of the fatal ones. The original plan of Prof. Porro has been closely adhered to except in some minor points.

Prof. Breisky, of Prague, performed his sixth operation early in May last, and presented the woman before the Medical Society of that city at its session of June 5th. The patient was 27 years old, a primipara, and affected with deformity of the pelvis, the result of rickets, the contraction affecting all of its diameters, but chiefly to the left side. The child had a large head, which presented at the superior strait. The length of the cicatrix indicated that the operation had been performed according to the modification of Müller.

This is the sixth Porro case of Prof. Briesky, all of which have been operated upon successfully.

Researches upon the Causes of Progressive Locomotor Ataxia.—Dr. Belugou, in a study of the causes of progressive locomotor ataxia, formulates his conclusions as follows:

1. No cause can be cited as exclusively giving rise to locomotor ataxia, or as being a necessary element for its production.

2. The etiological conditions which seem to possess the greatest importance for the genesis of the disease, are syphilis, hereditary nervous disease, rheumatism, and functional abuses.

3. In almost every case, in connection with other etiological conditions, functional excesses and nervous exhaustion play an accessory rôle and contribute, in a degree more or less extended, to the evolution of the disease.

4. The etiology of tabes in the majority of cases may be formulated as follows: In an individual of a highly nervous temperament, hereditary or produced by functional abuse, or as is almost always the case, the first exaggerated by the second, an occasional cause or accident, or chill, or a little less frequently the localization of one of the two diatheses, rheumatic or syphilitic, gives rise to the affection.—*Le Progrès Médical*, September 5, 1885.

Ferrán's Cholera Inoculations.—The following are the conclusions of Prof. Van Ermengen's report to the Belgian Minister of Public Instruction, concerning the cholera vaccinations of Ferrán:

1. Koch's bacillus was present in the stools examined, and the choleraic nature of the disease was certainly established.

2. The vaccine liquids of Dr. Ferrán are produced by cultures of the microbe of cholera.

3. A liquid for second vaccination, on examination, was found to contain the comma-bacillus in a state of pure culture.

The microbes were few and small; their feeble proliferation was due apparently to lack of nutritious matter in the culture material, or to the presence of substances unfavorable to their development.

The vaccine contained none of the varied forms of development described by M. Ferrán.

4. The round corpuscles which M. Ferrán considers *spores* are very probably inorganic matter.

In no case has it been shown that these granulations possess the biological properties hitherto recognized in the resistant germs of bacteria.

5. The mulberry-formed bodies described by M. Ferrán, from which he considers the spores arise, are crystalline masses, as is shown by their solubility in acetic acid, their characteristic form and extraordinary dimensions.

6. The subcutaneous injection of M. Ferrán's vaccine liquid in the quantity of 2 c.c. produces in man phenomena of local irritation and slight febrile reaction, very different from the syndromata of cholera.

They differ also from the symptoms of cholera described by M. Ferrán, in his communication to the Académie des Sciences de Paris (April 15, 1885), which he produced in man by hypodermic injection in smaller quantity, of a virulent culture of the comma-bacillus.

7. In subjects upon whom reinoculation was practised, phenomena of the same nature recurred in the majority of cases, as were exhibited in those inoculated for the first time. It was not proven in those cases in which the phenomena were less pronounced, that the method of inoculation or the composition of the vaccine fluid could not explain the difference in the results.

8. Blood taken from six cases in which inoculation had been practised, from the inflamed tissues and the general circulation, exhibited the characteristics of normal blood, and contained no microörganisms.

9. It remains to be shown that the local inflammation produced by the injection of vaccine is due to a specific action of the microbe upon the tissues, and not to the bile which M. Ferrán adds to his cultures. M. Ferrán did not consent to the performance of control experiments necessary to establish this point.

10. Inoculations in the cases observed have been without deleterious results.

11. It is doubtful whether the vaccine of M. Ferrán is of attenuated cultures. The methods by which they are obtained are unknown to Prof. Van Ermengen, M. Ferrán having refused to reveal them, before he has communicated them to the Académie des Sciences de Paris.

12. Prof. Van Ermengen's experiments show that a noticeable attenuation is spontaneously produced in cultures made *seriatim*, under influences little determined.

13. The statistics collected, hitherto without control, and solely by partisans of the prophylactic system of M. Ferrán, are neither sufficiently complete nor precise to allow any decision whatever to be made as to the efficacy of the inoculations.

14. Experimentation upon animals, the only scientific basis of a prophylactic system, such as M. Ferrán recommends, should seek to establish whether subcutaneous injection confers immunity in diverse ways against the infection.

Such experiments should show whether subcutaneous injection protects, not only from reinoculation by a mortal dose, by the same method, but also against

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infection by the digestive tract.—*Revue de Thérapeutique*, September 1, 1885.

HYPERTROPHIC RHINITIS. — DR. FONTANILLES (Thèse de Bordeaux, 1885) describes this affection as a generalized or circumscribed swelling of the mucous membrane. The causes of the disease are general or local. Under the first may be placed scrofula, syphilis, herpetism, chronic and acute coryza. Local causes are most important in the production of the disease. Unusual size of nostrils, the air entering largely by this path, is a chief source of irritation. Further, the foreign matters thus introduced are larger and more numerous according as the current of air is more powerful. Absence of hairs at the orifice of the nostrils and snuffing, according to Beverley Robinson, are frequent causes of the disease, as are also cold nasal injections.

The functional symptoms are those of nasal stenosis. Objective symptoms are furnished by the appearance of the mucous membrane, the seat of swelling, its form and consistence.

The progress of the disease is mild and continual; its duration prolonged. It may be complicated with loss of smell, difficulty of respiration, and difficulty of hearing, and vision may be affected by obstruction of the nasal canal.

Concerning the nature and treatment of the affection, Dr. Fontanilles reaches the following conclusions:

1. That the affection is not only a symptom, but a morbid entity, whose existence is perfectly determined.

2. It should not be confounded with chronic coryza, naso-pharyngeal polypi, or adenoid vegetations.

3. Its complications, serious at times, are of such a nature that they deserve peculiar attention.

4. Its treatment, always followed by success, is cauterization by the galvano-cautery, or crystallized chromic acid.—*Revue Mensuelle de Laryngologie, d'Otologie, et de Rhinologie*, September, 1885.

SANITARY MEASURES AGAINST CHOLERA.—The Section of Medicine in the Congress of the French Association for the Advancement of Science, held August 12, 1885, unanimously declared that land quarantine, sanitary cordons, and fumigations are useless and dangerous measures against the disease.

The cholera should be arrested at its entrance at the Red Sea.

The only precautions upon the frontiers should be:

Medical inspection of travellers, together with inspection of wagons, and the disinfection of bedding, garments, and miscellaneous objects by moist heat.

Maritime quarantine should be imposed according to the degree and form agreed upon by the International Conference at Rome.

The Congress further declared that the sanitation of cities by cleanliness, is the only efficacious means of staying the progress of the epidemic.—*Le Progrès Médical*, August 22, 1885.

THE TREATMENT OF PULMONARY TUBERCULOSIS.—PROF. DE RENZI, in thirty-one cases of pulmonary tuberculosis, of which seventeen were men and fourteen women, instituted the following treatment:

1. Internally, tonics and antiseptics were administered. Among the first were quinine, phosphate of lime, etc.; and among the second, creasote, the alkaline carbonates, and iodoform.

2. Local treatment by inhalations of ozone, nitrous vapors, iodoform, and turpentine, with expirations into rarefied air, followed by inspiration of compressed iodized air.

The results recorded are:

One patient cured; two months after his departure from the hospital, auscultation revealed no abnormal thoracic symptoms.

Of the remaining cases five were benefited, while twelve experienced no change whatever, and three died.

Prof. de Renzi particularly recommends inhalations, with the exception of those of alkaline reaction. Alkalies, however, taken internally, have increased the weight and improved the general condition of two-thirds of the cases.—*L'Union Médicale*, September 5, 1885.

HYPNOTISM AS A METHOD OF TREATMENT OF INSANITY, AND THE APPLICATION OF SUGGESTION WITH THE INSANE AND NERVOUS.—At the recent meeting of the Society for the Advancement of Science M. VOISIN reported the following conclusions relative to the treatment of insane and nervous patients, affected with partial delirium or maniacal excitement, by hypnotism:

1. Hypnotism produces an immediate and striking effect. The slumber and calm thereby produced could be caused by no drug, to such an extent, without danger.

2. There results therefrom a series of consecutive phenomena, under the head of which it is necessary to place diminution and suppression of the morbid habit.

3. Hypnotism permits the employment of suggestion and the production by its means of modification of ideas, character, and instincts; the return to labor, manual and intellectual; the cessation of hallucinations and of delirious conceptions; the reëstablishment of the organic functions; the suppression of gastralgias and enteralgias; and the possibility, consequently, of regular alimentation of the insane and nervous, who refuse to eat and are deprived of good hygiene and its favorable consequences.

4. Hypnotism still further permits the obtaining of information from those patients who refuse to say anything which will enlighten the physician as to the pathology and causes of their nervo-mental condition, and of giving physical and moral attention appropriate to their disease.—*L'Abeille Médicale*, August 31, 1885.

CALCULUS OF THE TONSIL.—Cases of calculus of the tonsil have been reported by Louis, Monro, Passaguay, and others, but they are not of frequent occurrence. M. TERRILLON exhibited one of the size of a nut at the French Association for the Advancement of Science. It was taken from a man, aged fifty years, who had been subject to attacks of acute and subacute inflammation of the tonsils. As the tonsil was swollen, lobulated, very hard and painful, a diagnosis of cancer was considered to be not improbable. Exploration with the finger and a probe, however, detected the calculous body, which was easily removed. The symptoms passed away under the employment of emollient and astringent gargles.—*The Lancet*, Sept. 19, 1885.

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SATURDAY, OCTOBER 10, 1885.

THE CHOICE OF METHODS IN ABDOMINAL DELIVERY.

THE announcement that the fourteenth Porro-Cæsarean operation at the Santa Caterina Hospital, in Milan, and the sixth of Prof. Breisky, of Prague, have ended with success to mother and child, brings to mind the question as to the proper form of abdominal delivery to be selected in cases in which the fœtus cannot be extracted through the natural passages without very serious risk to the mother.

During the period when Prof. Chiara, now of Florence, was Chief of the Santa Caterina Maternity, the Porro method of delivery by laparotomy and amputation of the uterus through the cervix was introduced to the exclusion of the old Cæsarean operation, which had been marked by a high rate of fatality. The first and second operations, the latter by the Müller modification, were fatal to the women, but the succeeding ones by him, his two assistants, his successor, Prof. Porro, and his first assistant, have saved all of the women but the ninth, and all of the children. Photographs of the third, fourth, fifth, sixth, seventh, and eighth cases, taken after recovery, and now in this city, bear evidences of good health in their appearance. The ninth case was the first operated upon by Porro, and proved fatal from a rare sequel of the procedure, namely, the strangulation of a knuckle of intestine from an adhesion to the abdominal wound. The tenth, eleventh, twelfth, thirteenth, and fourteenth operations have saved the mothers and children. Thus, twelve successive operations since the first two fatal experiences, have, under the strictly Porro method, saved eleven women and twelve children, in the hands of five different operators in the same hospital.

Prof. Breisky, from the first, adopted the long incision of Müller, and has had uniform success with his six cases, saving both the women and the children. There may be some difference of opinion as to which operation gives the better promise of success, but in the comparison, from this point of view, there can be no question, as the results, thus far, have been similar. The special advantages of the Müller modification are shown in cases in which the placenta is located in the line of incision, or in which the uterus has contained a putrid fœtus, with putrescent fluid and gas, which threaten septic poisoning, either directly or by escape of the fluid into the abdominal cavity upon the opening of the uterus *in situ*. It must be remembered that operators have failed in several cases in the attempt to turn out the unopened uterus after making the long incision, and that its evacuation within the abdomen saved a majority of them.

In cases in which the obstruction to delivery is caused by a fibroid tumor of the cervix, or of the lower segment of the uterus, which cannot be pushed up out of the way, or enucleated, the proper operation is the old Cæsarean, as the lesion of the uterine tissues renders amputation and constriction of the cervix unadvisable. Cases of fibroid tumor are very apt to be fatal, nine having died out of thirteen in the United States after gastro-hysterotomy, not so much because of the uterine disease, as because of the delay in operating, and the persevering attempts to deliver by the forceps, or by craniotomy. Such subjects generally die of shock or septicæmia in a short time.

In hospital practice, the Porro operation has been far less fatal than gastro-hysterotomy. In this country, the latter operation has been tried eight times in hospitals, and always with a fatal result to the mother.

In country practice in the United States, we would recommend the old operation, and for the following reasons: 1. It requires less assistance than any of the new methods, and has been performed often with but one medical assistant, and several times without even this. 2. Country women are much more likely to recover than the poor of cities, and an early use of the knife will save seventy to seventy-five per cent. of them.

In impacted transverse positions of the fœtus, in which an arm generally protrudes, the old operation is to be preferred, as the removal of the uterus is not justifiable where the pelvis is normal. Amputation of the neck of the fœtus, or evisceration may prove more serious than the Cæsarean operation, and in this country we are encouraged to prefer the latter, because of the fact that eight out of eleven women have been saved. As the subjects of this form of dystocia are usually in full health, and possess great physical advantages over those deformed and dwarfed

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by rickets, the prognosis in their cases is much more favorable, even after considerable delay before resorting to the knife.

The Sänger method of closing the uterine wound in concluding the old operation, is to be preferred, as it secures the abdomen against uterine leakage and its consequent risks. The resection of the muscular coat is not a requisite of success, and the dissecting loose of the peritoneum has been shown to be useless, as the welting of it into the uterine wound may be effected by sliding over the edge of the muscular coat its loose serous envelope, and bringing the two outer surfaces in contact. Six women out of twelve have been saved by this method; one operator, Dr. Leopold, of Dresden, having rescued four women and five children by five operations, as shown in a recent article, by Dr. Harris, in the *American Journal of the Medical Sciences* for October, 1885.

Laparo-elytrotomy has also saved six women out of twelve, and has been particularly successful in New York and Brooklyn, where six out of nine women have recovered. This operation promises better after delay than any other, as it avoids an element of danger in the non-incision of the uterus. Like all the other forms of abdominal delivery, the prognosis will be more favorable in cases where there has been the least delay, although women have recovered after labors of four days, and a week. In many forms of dystocia, this variety of operation will be found impracticable. This is the case in occlusions of the os uteri by tumors of the cervix, cancer, and obliteration due to diffuse cervicitis and infiltration. As the gaping of the lips of the incision of the uterus and the escape of fluid into the abdominal cavity are the chief elements of danger in gastro-hysterotomy, laparo-elytrotomy, which avoids both, ought theoretically to be less dangerous, and should be more successful, especially in Great Britain, where even early performed gastro-hysterotomy loses 75 per cent. of the women.

TUBERCLE BACILLI AND GIANT CELLS.

THE beautiful researches of BAUMGARTEN, of Königsberg (*Zeitschrift für Klin. Med.*, Bd. ix.), who discovered the tubercle bacillus independently of Koch, bring us a step nearer the solution of the question of the relation of the bacilli to the early tissue-changes in tuberculosis.

Briefly stated, the results which he has obtained by the study of artificially produced tubercle of the cornea and iris, are as follows: The first effect of the penetration of the bacilli into the tissues is seen in the fixed cells, which under the stimulus proliferate, showing the characteristic nuclear changes, with the production of large epithelioid and giant cells. A migration of leucocytes from the vessels in the affected region then takes place, and by a concentration of these about the foci of tissue proliferation, the well-known miliary tubercles, consisting of lymphoid and epithelioid elements, are produced. No further progressive changes can occur, and by a gradual process of caseation the final stage is reached.

Two points seem very clearly demonstrated by these investigations; first, the primary proliferation of the fixed elements before any trace of the presence of leucocytes or lymphoid cells; and, second, the development of the giant cells out of the epithelioid elements by a process of nuclear multiplication in which the cell body does not participate.

WEIGERT has sought to trace the relation of the bacilli to the giant cells, and his investigations (*Deutsche med. Wochenschrift*, No. 35) supplement those of Baumgarten in an interesting manner. These structures, as is well known, are peculiar in the arrangement of the nuclei at the periphery, either as a continuous mantle, as a crown, or as a girdle, while the larger part of the cell body is free. With Arnold and Baumgarten, Weigert believes that they take their origin from fixed tissue elements, and do not arise by any such process as a confluence of cells. That the nuclei alone divide, and not the entire cell with the formation of similar ones, must be regarded as an indication of defective cell energy, and not an excess, as usually supposed; and Weigert seeks to associate this defect with the presence of the bacilli.

The frequency of the occurrence of bacilli in the giant cells has been noted by all observers, and they occupy by preference that portion of the cell, just within the nuclei, at the margin of the homogeneous central substance. They are rarely found in this part; in one hundred cells, only eleven bacilli were in the granular non-nucleated portions. The distribution in the cells is quite analogous to the peripheral position which they occupy in older tubercles which have caseated. It is suggested that the bacilli in the giant cells induce a partial necrosis of the protoplasm, and hence the inability of the cell to undergo division and the peculiar grouping of the nuclei and microbes at the peripheral portion. Death of only a part of a cell is not unknown in normal and pathological processes, and Weigert refers to the goblet cells of the intestine, to the epithelium of the kidney, in which he has shown a partial necrosis can occur; and to the hyaline degeneration of muscle, as somewhat similar processes. The central non-nucleated part of a giant cell, on this view, may be regarded as a focus of caseation induced by the destructive, necrotic influence of the tubercle bacilli.

PUERPERAL APHASIA.

THE term puerperal is frequently used without that limitation which its etymology indicates. While this word essentially relates to the condition of a wo-

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man who has recently given birth to a child, some have also applied it to that of pregnancy, and hence for them the puerperal is not only the recently delivered, but also the pregnant woman.

There is another respect in which the limitation of the term has been transgressed. It has been applied to pathological states that may occur in pregnancy, in labor, or in childbed, the former being dependent on the latter; thus we have puerperal convulsions, though, strictly speaking, eclampsia ought to be distinguished as that of pregnancy, of labor, or of childbed, only the latter being puerperal. Nevertheless, this extension of the term is convenient, and is not likely to lead to error.

In addition to these liberal uses of the word, it has also been applied to affections that are merely accidental in the puerperal woman; they may modify that state, or be modified by it, but they may occur quite independently of such condition, and do thus occur most frequently. Should this disposition to label with the word puerperal all diseases and accidents of childbed continue, we may yet have in textbooks a chapter upon puerperal toothache, puerperal fracture, puerperal coryza, etc.

These reflections have been suggested by an interesting paper found in a recent number of *L'Encéphale*, entitled "Des Aphasies Puerpérales," by Poupon. The author comprehends under this term the different varieties of aphasia occurring during pregnancy or in childbed. The affection is a rare one, he having been able to collect but twelve cases.

In regard to its etiology, in three instances it seemed to be consequent upon albuminuria, and in one upon septicæmia. Independent of these cases, Poupon regards puerperal aphasia as due either to vascular or to nervous disorders. The vascular disorders may be divided into two classes. The first includes congestion, and anæmia, and the second either hemorrhage, or thromboses, or emboli. He states that the only one of these which has been demonstrated is embolism, although, certainly, congestion was the cause in some of the cases.

In regard to aphasia of nervous origin, this may occur in the hysterical, or it may result from a profound mental disturbance independently of any tendency to hysteria. The aphasia may last only twenty minutes, or half an hour, or for several days.

In the aphasia consequent upon embolism, there is usually right hemiplegia with predominant paralysis of the arm.

The prognosis of puerperal aphasia is generally favorable. In almost all cases in which the disease is of nervous origin, recovery takes place. The other forms of the disease are so remarkably mitigated that one may regard them as almost cured. It is probable that in these cases the collateral circulation is reëstablished sufficiently for the brain to regain its functions. Such reëstablishment is more likely to occur because the subjects are young, and the arterial system in good condition.

Women who have suffered with puerperal aphasia ought to avoid pregnancy, since the disease may return.

The treatment will differ according to the cause of the aphasia, but in this, as in other forms of the disease, an effort should be made to exercise the faculties of the patient, and, as it were, to reëducate her, avoiding too long or too frequent *séances*.

We think the majority of our readers will doubt the propriety of making a special variety of aphasia, that which may occur in a pregnant or in a puerperal woman, since it is exceedingly rare, and since its necessary connection with the woman's state is not in all, or even in the majority of, cases conclusively shown.

SMALLPOX IN MONTREAL.

The city of Montreal is now paying the penalty of neglect of one of the most certain means of preventing disease that modern investigation has ever disclosed. If there be a malady whose spread is subservient to human control, that malady is smallpox. If the world could be convinced of this fact and could be made to adopt the practice of vaccination, this most loathsome of diseases would cease to exist in epidemic form. But at present no such hope need be entertained; the most that can be expected is the restriction of the scourge to moderate outbreaks.

What is now occurring in Montreal is but the repetition of the experience of other cities that have been careless about the administration of sanitary government. When the infection of smallpox was first carried into Montreal, the conditions were most favorable for the spread of the disease. A large proportion of the community was unprotected by vaccination, and indifferent or opposed to the employment of this means of security. The sanitary service was totally inefficient, and, in consequence, no adequate preventive measures were employed to limit the infection to its starting-point. Little or nothing was done to restrict the disease until it assumed the proportion of an epidemic, and secrecy was no longer possible. Not until valuable time had been lost was an attempt made to reorganize the sanitary government and employ radical measures against the further spread of the scourge. These measures have met with resistance. The inflamed condition of the public mind has afforded an opportunity, of which advantage has been taken by the malcontents which infest all cities, to mislead the ignorant classes, stir up their prejudices, and incite them to deeds of violence. Riot and bloodshed have been the consequences. Such, within a few short weeks, has been the experience of the city of Montreal, growing out

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of a state of unpreparedness to meet and cope with a disease which is absolutely preventable, and which, notwithstanding this fact, is continually slaying its victims by thousands.

This experience should serve as a warning to other places to at once make sure their defences against the inroads of this disease. It has been some time since smallpox has been prevalent in this country, and in its absence the people are apt to relax their vigilance. Let vaccination be generally practised, and preparation be made to treat promptly and with adequate measures the first and every case that makes its appearance in any community. If this be done, there will be no danger of the spread of smallpox from the infected centre of Montreal.

The Journal of the American Medical Association announces that the first meeting of "The Executive Committee of the Ninth International Medical Congress" was held in New York, on September 24th. Drs. Flint, E. S. F. Arnold, Dennis, A. B. Arnold, Briggs, H. H. Smith, J. Lewis Smith, Pancoast, Marcy, and Robinson being present. The Committee organized by the election of Dr. H. H. Smith as Chairman. A new office, that of Associate Secretary-General, was created, and Dr. Dennis was elected to fill it, and "another," whose name, evidently for prudential reasons, is withheld, was appointed to the Chairmanship of the Finance Committee.

"To prevent," says the *Journal of the Association*, "all further misunderstanding, both at home and abroad, the Committee unanimously adopted the following resolution:

Resolved, That this Executive Committee enters upon the management of the affairs of the Ninth International Medical Congress, with the understanding that, in accordance with Rule No. 10, its powers are not restricted except by the rules and regulations adopted Sept. 3, 1885, by the Committee of Arrangements appointed by the American Medical Association in April, 1885; and that the actions of this Executive Committee are final, not being subject to revision, amendment, or alteration by either the Committee of Arrangements or the American Medical Association."

The *Journal* adds that "the proceedings of the Committee were characterized by entire harmony and a commendable zeal in pushing forward the proper preparations for the Congress," but makes no comments on the remarkable resolution which was adopted, probably because they are superfluous, since it has uniformly declared that "the Association in conferring these powers and duties upon its Committee, by no means abrogated its own authority in the premises." Moreover, the organ of the Association warmly endorsed the opinion of Ex-Speaker Randall, which it published last July, in reference to this controversy, that the "theory that a select committee created by a body with certain defined powers and duties gives any *vested rights*—so to speak—which place it above or beyond the power of the creating body to review or regulate, is one not only without precedent in parliamentary law, practice, or history, but is untenable on any ground of parliamentary principle. A legislative or other body may, if it sees proper, temporarily delegate as a matter of convenience, certain of its powers and functions to a select or standing committee, but it does not thereby part with its inherent right to resume that power whenever it chooses, and that right is one which the committee cannot question."

SOCIETY PROCEEDINGS.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, October 1, 1885.

THE PRESIDENT, ABRAHAM JACOBI, M.D., IN THE CHAIR.

THE PRESIDENT, in opening the first meeting of the Academy after the summer recess, made the following address:

FELLOWS OF THE NEW YORK ACADEMY OF MEDICINE: It is a source of intense gratification to me to greet you this evening in the beginning of a new season of coöperative work, after a long vacation. May the labors of the coming months be successful both for ourselves and for the medical world, *Ars longa, vita brevis*. Art is so extensive, indeed, and life so short, that we have to concentrate all our efforts to accomplish a certain amount of result.

In behalf of our common interests I crave your attention first for a few facts which I consider of great importance in regard to medical progress. They are connected with the session of the International Congress held in Copenhagen from the tenth to the sixteenth of August, 1884. In a general meeting, held on August 14th, upon propositions made by Sir James Paget, of London; Prof. Ewald, of Berlin; Prof. Bouchard, of Paris; and Dr. Billings, of Washington, the following resolution was passed: That an International Committee be formed for the Collective Investigation of Disease, in connection with the work of the International Congress, and that a certain number of gentlemen do represent their respective countries thereon. The gentlemen designated for that purpose were Trier and C. Lange, of Copenhagen; E. Bull, of Christiania; Rauchfuss, of St. Petersburg; Ewald and Bernhardt, of Berlin; Schnitzler, of Vienna; Pribram, of Prague; Korányi, of Buda-Pesth; D'Espine, of Geneva; Bouchard, of Paris; Lépine, of Lyon; Sir Wm. Gull and Mahomed, of London; Humphry, of Cambridge; Sir Joseph Fayrer, for British India; Gutierrez-Ponz, for South America; N. S. Davis, of Chicago; A. Jacobi, of New York; and Isambard Owen, Secretary-General, of London. The only changes which have since taken place in the list

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of membership have been brought about by the untimely death of Dr. Mahomed, and the addition of Axel Key, of Stockholm, and Runeberg, of Dorpat.

According to a circular distributed by the Secretary-General some time ago, "the main objects which the Committee seeks to attain through the collective investigation of disease are to widen the basis of medical science; to gather and store the mass of information that at present goes to waste; to verify and correct existing opinions; to discover laws where now only irregularity is perceived; to amplify our knowledge of rare affections; and to ascertain such points as the geographical distribution of diseases and their modifications in different districts. It will be its endeavor to place clearly before the whole profession the limits and defects of existing knowledge, as well as to stimulate observation, and to give it a definite direction."

These are both the motives and the propositions of the Committee appointed at Copenhagen. In regard to them, and collective investigation in general, the favorable opinion of the profession has been expressed frequently. But now and then a voice is still heard disparaging its utility, and discouraging the collection of facts on a large scale for the reason that the procedure has not yet been demonstrated to be useful. Indeed, it has not, for it has never been tried to a large extent. We shall hardly insist, however, that the ground-stone must not be laid because the tower is not yet on the edifice; that the seed must not be sown because the fruit cannot be harvested to-day or was not gathered yesterday.

As to the usefulness of collective investigation, the opinions will become all but unanimous. The efforts of the British Medical Association and the Medical Society of Berlin, and the fair success of an attempt at solving a problem connected with the etiology of croupous pneumonia, made in the Medical Society of the County of New York, during the last year, are sufficiently promising for the collective investigations of the future. In their interest it is that I propose to make a further communication, and request your coöperation.

The Central Committee on Collective Investigation of the International Congress has selected the following subjects, viz.: Rickets, chorea, acute rheumatism, and cancer, planned a number of simple questions in regard to them, mainly to their etiology, and expects as simple answers. Being the secretary of the American subcommittee, I have gathered all of them in pamphlet form, added a few introductory general remarks supplied by the Central Committee, and present herewith a specimen for your inspection. Those of you—I hope all of you—and those of the profession at large who will learn of this request, are respectfully asked to interest themselves and their friends in behalf of the undertaking, notify me of their desire to be furnished with a copy, and comply with the suggestions of the committee contained therein. We do not look for immediate achievements. For the complex of sciences and arts called medicine, has required thousands of years to arrive at its present condition; the aggregation of many wills and forces has resulted in a slow evolution only. No single discovery, even, nor the first attempts at collective investigation, will effect a revolution in medicine. But what we do hope to accomplish, is the gathering of facts on the strength of an improved method, the confirmation of old and the acquisition of new knowledge, and thus to contribute to the success of at least this one committee. It need not matter how much may have, nay, has, been done, to mar the success of the next International Assembly, and to deprive us of the opportunity long looked forward to, of greeting the giants of science, the celebrated teachers, the ingenious experimenters, and our literary or personal friends of Europe, on our own soil. For an International Congress will never convene under the roof of a house divided in itself, though the division may be the work of a few sacrilegious hands only.

But this is a sad theme, known to everybody here, deplored by everybody who feels as both a personal grief and a public calamity the humiliation which is involved in the hesitation on the part of the Congress to assemble in our country.

It is in profound sorrow that I pass by the subject; I prefer to speak of another topic, which, while it is not directly connected with any of the aims and immediate purposes of this Academy, concerns us as professional men of the State of New York and the Union. I allude to the almost unexpected success on the part of the profession of the State of New York in harmonizing a large majority of the medical men of the United States.

Let me explain. Chapter II. Art. IV. Sec. I. of the Code of Ethics of the American Medical Association reads as follows: "A regular medical education furnishes the only presumptive evidence of professional abilities and acquirements, and ought to be the only acknowledged right of an individual to the exercise and honors of his profession. Nevertheless, as in consultations the good of the patient is the sole object in view, and this is often dependent on personal confidence, no intelligent regular practitioner, who has a license to practise from some medical board of known and acknowledged responsibility recognized by their association, and who is in good moral and professional standing in the place in which he resides, should be fastidiously excluded from fellowship, or his aid refused in consultations when it is requested by the patient. But no one can be considered as a regular practitioner, or a fit associate in consultation, whose practice is based on an exclusive dogma, to the rejection of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry."

This paragraph has so often been criticised by both friends and adversaries, that it is unnecessary to refer again to its contradictions, its "nevertheless" and "but," and to its implied acknowledgment of modern "homœopathy." For let us not forget that the Code of Ethics of the American Medical Association saw the light forty years ago, and that what they call "homœopathy" now-a-days, differs from Hahnemannism of those times in every thing but the name. They now claim that their practice is not based on an exclusive dogma, they claim to teach in their schools, and do teach, anatomy, physiology, pathology, and organic chemistry, and thus come up to the requirements of the above article of the Code of Ethics of the American Medical Association. *Indeed, if there were no better grounds for their rejection, they would to-day be entitled to membership in the Association.*

What the Medical Society of the State of New York,

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in its sessions of 1882 and 1883 adopted in its stead (*Trans. of the Med. Soc. of the State of New York* 1882, p. 75), in a code of medical ethics which covers two pages instead of the eighteen pages of the Code of Medical Ethics of the American Medical Association (*Proceedings of the National Medical Conventions, held in New York*, May 1846, *and in Philadelphia*, May 1847, p. 91–106) reads as follows:

"Members of the Medical Society of the State of New York, and of the Medical Societies in affiliation therewith, may meet in consultation legally qualified practitioners of medicine. Emergencies may occur in which all restrictions should, in the judgment of the practitioner, yield to the demands of humanity."

Compare with these brief sentences the explanatory declaration of the American Medical Association passed unanimously in its session at New Orleans of April 30, 1885. There and then it was

1. "*Resolved*, That clause first of Art. IV., in the National Code of Medical Ethics, is not to be interpreted as excluding from professional fellowship, on the ground of differences in doctrine or belief, those who in other respects are entitled to be members of the regular medical profession. Neither is there any other article or clause of the said Code of Ethics that interferes with the exercise of the most perfect liberty of individual opinion and practice.

2. "*Resolved*, That it constitutes a voluntary disconnection or withdrawal from the medical profession proper, to assume a name indicating to the public a sectarian or exclusive system of practice, or to belong to an association or party antagonistic to the general medical profession.

3. "*Resolved*, That there is no provision in the National Code of Medical Ethics, in any wise inconsistent with the broadest dictates of humanity, and that the article of the code which relates to consultations cannot be correctly interpreted as interdicting, under any circumstance, the rendering of professional services whenever there is pressing or immediate need of them. On the contrary, to meet the emergencies caused by disease or accident, and to give a helping hand to the distressed without unnecessary delay, is a duty fully enjoined on every member of the profession, both by the letter and the spirit of the entire code.

"But no such emergencies or circumstances can make it necessary or proper to enter into formal professional consultations with those who have voluntarily disconnected themselves from the regular medical profession in the manner indicated by the preceding resolution."

After these resolutions had been passed in New Orleans, many of the professional men who always persisted in adhering to the code of the American Medical Association were of the honest opinion that they had, by accepting them, removed every discrepancy of opinion or difference of action on the part of those adhering to either the old or new Code; for it is true that the explanatory declaration of Chapter 2, Article IV., Section 1, exhibits a great resemblance to the New York Code of 1882. For the Medical Society of the State of New York, it must be a source of intense gratification to be convinced by the passing of that declaration that a few years have sufficed so to change public opinion as to oblige even the American Medical Association to recognize the justness of most of the New York proceedings. Upon this result the New York State Society can but be sincerely congratulated, and the spirit of equity and justice as displayed by the Committee drafting the explanatory declaration must be commended.

The expressions of opinion in regard to the wholesome effect of the New Orleans declarations have been very numerous. I am in possession of several letters containing remarks full of satisfaction and hope. A gentleman well and deservedly known in the professions of both hemispheres, and markedly so with us for his allegiance to the Code of Ethics of the American Medical Association, gave enthusiastic expression to his delight over the satisfaction that declaration must give, and to the hope that the New York Academy of Medicine would give a public utterance in that direction. That would immediately settle all difficulty about the Code, and at once restore peace and harmony in the profession. I had to tell him that the Academy excluded all politics, ethical or otherwise, from its discussions, and that the only societies which could act in the matter were the medical societies of the county and of the State of New York. There the matter then rested, for I believe I was right in excluding it from any consideration in our midst.

Still, while this Academy is no political body, old and new codes, as far as I know, being equally represented with us, we are an integral part of the body medical, and the events in the professional world affect our interests and sympathies intensely. Thus we have to regret that the wording of the resolutions of New Orleans is very apt to obscure their meaning. Emergencies are acknowledged to be binding; but, while the New York Code admits that a physician may (not shall, or must) consult with a legal practitioner in a case of emergency, the explanatory declaration of the Association insists that such a meeting is not a meeting in the usual meaning of the term, and such a consultation "no formal professional consultation."

The differences are rather slight, it is true. If, in spite of that, the Code question is still made a war cry by some, that fact reminds us of the bloody wars, and persecutions directed against former friends because of nominal differences of ecclesiastical opinions, in the history of the church. It is also explained by the intense enmity exhibited under all circumstances by those who have been convinced against their will. In a few instances we have to deal with the zeal displayed by converts who, after they had greeted the birth of the new Code with congratulations were induced by certain external circumstances to change what they call their minds within the period elapsing between the appearance of two monthly numbers. Or, what is still more, shall I say surprising? shall I say sad? there are those who fought the new Code because they longed for a fight, without caring on what account. A gentleman who edited a sprightly and rattling journal at that memorable time, and voted the "regular ticket," and was by no means gentle towards the new Code men and principles, has convinced and assured me he never read the new Code. I believe him. There are others again—their number has been large at all times—whose souls and sensibilities are moved by shibboleths, by single words, provided these words are skilfully handled by shrewd calculation.

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"Just where fails the comprehension
A word steps promptly in as deputy.
With words 'tis excellent disputing;
Systems to words 'tis easy suiting;
On words 'tis excellent believing;
No word can ever lose a jot from thieving."
(Bayard Taylor's *Faust*.)

This is the element which in skilful hands determines for a moment the result of meetings, caucuses, assemblies. It is the emotional element, which is swayed by sentiment both false and true, by gesticulating oratory, and by implicit temporary confidence in the veracity and sound motives of its presumed leaders, which, therefore, "takes the specialists of the new Code persuasion by the tops of their heads and cuts their throats," but after all is cooled down by common sense, consciousness, and conscientiousness when left to itself. Such men are in the majority. They are the waves of the ocean, always changing, now smooth and smiling, then turbulent and raving; and still always the same, steady in their general effects, now and then a disturbance, and an injury, but always the internal source of healthful development. We never cease to bless the ocean, even when it is doing its temporary worst. Let us, therefore, not despair of the future peaceful and blissful development of the country or the profession in times of turbulent commotion.

What difference is left unabolished may be left to itself until acrimony is soothed and bitterness replaced by kindness. Greater discrepancies than these have been wiped out. When the actions of men will be weighed, their opinions in regard to dogmatic utterances will be disregarded. When deeds are counted, let creeds be tolerated. But let us have patience, all of us; great improvements in the universal conscience do not take place by hard fighting and refuting. Lecky is right when he says that the greatest errors cannot be annihilated; it takes time for them to fade out.

In the face of the explanatory declaration passed in New Orleans, which in its main aspect, I take it, endorses the New York State Society and the spirit of the New Code, the majority of those present in the meeting of the American Medical Association were guided into believing that they must protect a sacred code from infidel invaders. The main complaint was that new code men had been given offices in the organization of the International Congress. On page 101 of *The Journal of the American Medical Association* you will find the following complaint: "Directly upon the threshold of the most important part of their work a majority of the original committee practically ignored all allegiance to the Medical Association, and, assuming an entirely independent attitude, at once placed in the front of their ranks . . . one who was well known to have repudiated the National Code of Ethics." And in a voluminous circular addressed to State and county medical societies, composed almost exclusively of editorials of *The Journal of the American Medical Association*, and signed by the permanent Secretary of the Association and four other gentlemen, the following language is used: "The editorials of *The Journal of the Association* . . . present the case (the differences in regard to the proposed organization of the International Congress) so clearly that there can be no doubt of the duty of the friends of the Association, or of the animus of its enemies. We feel assured that your Society will endorse the action of the Association, and stand firm in support of the Code of Ethics."

It is, however, fairly understood by this time that the war of the codes is over. In fact it has always appeared to unsophisticated people that the fighting about the code was not reciprocal at all; for when the New York State Society had settled its code question to its satisfaction, and that of the country societies in affiliation therewith, it appears that in them and by them, the subject was not mentioned again except on strong provocation. You remember that it took a great deal of emphasis to relieve even this Academy of the proffered dispute. The code question is dying a great deal more easily than the bloody shirt disappeared from the politics of the country. If it is puffed up as the pivot of the organization of the International Congress, everybody is perfectly aware that this is either a pretext or a grave mistake. Europeans who were not afraid of admitting laymen and homœopathists, expected to meet, if ever they would consent to cross the Atlantic for an International Congress, the American medical profession. No International Congress must be caught in domestic quarrels, or audaciously kidnapped by a society or a party, or the faculty of a medical school.

We are presenting a sad spectacle. In our first attempt at welcoming the medical world to our shores we have failed. The humiliation connected with this fact we have to submit to; to trace it to all its causes I cannot undertake here. The least we can do is to admit it; if the task we hoped to accomplish was too much for us, let us try to prepare for the future by attending to those duties of our own which we can perform without hinderance or disturbance. The affairs of the Academy will require our undivided attention.

That I speak of no imaginary evil we all know too well. What I said a few months ago of the growing tendency of a few to make the public acquainted with their merits and accomplishments through the columns of the secular press was considered timely, and met with the appreciation of many members of the profession, both old and young, here and elsewhere. I mean to deserve the respect of my peers and superiors in the profession by again directing your attention to the fact that the penny-a-liners of the daily press are being utilized in the interest of, and by weak-kneed brothers who cannot stand on their own legs, who mistake cheap notoriety for reputation, and the grin of derision for the smile of approval. The more power is concentrated in commerce, the greater the prevalence which is conquered by trade; the more rampant the spirit of grasping egotism which is pathognomonic of modern industrial pursuits, the more is it the domain of the liberal professions to approximate their aims to an ideal. Let us not forget that learning by heart the action of medicines, or the working of articulations, or the proper use of an instrument, does not exhaust the possibilities of a medical man. The physician requires all that, but beyond that all the characteristics of a man of principle and intellectual and moral culture. Neither can be inculcated by the demands of old or new codes. Still, as a corporation and a profession, we are responsible for the existence of these qualities in our members. It is true we cannot supply ideals to order, nor can we make those whose eyes seek the mire, raise their brow

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to the skies. But such as find it difficult to develop those qualities spontaneously, must be taught and aided in acquiring them.

As far as I am concerned, I hope there will be no occasion again to refer to the same subject during my term of service. If there be, I shall repeat my warning. For I take it for granted that when you elected me to the highest office in your possession, you did so both in the belief that your candidate would have opinions and principles of his own, and on the condition that he should do his full duty.

(*To be concluded.*)

MEDICAL SOCIETY OF VIRGINIA.

Sixteenth Annual Session, held at Alleghany Springs, Montgomery Co., Sept. 15, 16, and 17, 1885.

(Specially reported for THE MEDICAL NEWS.)

(Concluded from page 391)

DR. R. C. POWELL, of Alexandria, presented some

CLINICAL NOTES ON CARCINOMATOUS AFFECTIONS OF THE DIGESTIVE ORGANS; THE UNRELIABILITY OF GASTRIC SYMPTOMS AS EVIDENCES OF GASTRIC PATHOLOGY.

He related some cases to illustrate two points of diagnostic importance: (1) unreliability of gastric symptoms as evidence of gastric disease; and (2) the great value of cachexia as corroborative evidence of malignant disease. He regards the cachexia as a more certain sign of cancer than the presence of a tumor. As to treatment, the indications are to sustain strength and to relieve pain. A judicious selection of food is necessary if the stomach be involved.

DR. M. A. KUST, of Richmond, presented a paper on *The Etiology of Zymotic Diseases.*

PROF. M. L. JAMES, of Richmond, then read a paper on

DYSPEPSIA WITH NEURASTHENIA AND SOMNOLENCE.

He referred to the fact that dyspepsia is one of the most frequent causes of neurasthenia, from the double effects of interfering with digestion and producing a kind of shock to the nervous system. However, those cases which are marked by the severer forms of neurasthenia with some somnolence are usually in part a result of other causes; among which he cited, excessive labor, especially mental, excessive use of stimulants, dissipated habits, and abuse of the sexual organs. He noticed the fact that the indigestion and the neurasthenia react upon each other, but the neurasthenia having been produced largely by the indigestion, intensified the latter, and that, in the treatment, the digestion should be maintained in the most perfect condition, and all causes which produce and increase the neurasthenia should be removed, so that the digestive process may secure the greatest degree of innervation. While it is true that digestion is a chemical process, which may be conducted in retorts, it is nevertheless an intensely vital one. The nervous system has a large influence in maintaining or impairing the efficiency of digestion, and to that end he indicated that one of the most important measures of treatment is to secure the patient ample, undisturbed, and refreshing sleep. The food should be selected with reference to its ease of digestibility, and at the same time its capacity for sustaining nutrition, especially that of the nervous system, and hence that there should be a due regard to its richness in the phosphates. He said that inasmuch as the chief difficulty in this morbid association occurs with dinner, it is a matter of great importance that the nervous system shall have a period of rest, lasting from half an hour to two hours, according to the severity of the case, before partaking of this meal, in the recumbent position, accompanied by sleep, which is a habit that may very soon be acquired.

He stated that while stimulants, especially those which stimulate the cerebral lobes, such as caffeine, are suitable for single occasions, they are not suitable for habitual use and the final cure of the morbid concatenation. And for that reason he suggested the use of such tonics as quinine and strychnia in tonic doses, and the phosphates with a very limited amount of caffeine, either taken in the form of an alkaloid or else in a limited amount with tea and coffee. He indicated the following as a convenient formula for many of these cases, which he used with the best results:

℞.—Quiniæ phosphat. . . .	gr. xvj.
Strychniæ phosphat. . . .	gr. ½.
Acidi phosphoric. (50 per cent.)	♏ xx.
Caffeini citrat.	gr. xvj.
Aquæ puræ	ʒ vij.
Glycerinæ puræ,	
Spts. vini rectificat. . . .	āā ʒss.
Tr. cardamomi co. . . .	ʒj.

Misce secundum artem.

S. One or two teaspoonfuls immediately before or after breakfast and dinner, to be repeated when necessary every hour or two till the nervous depression is relieved, or every half hour till one or two doses are taken, if this depression be great.

For cases in which the digestion is so enfeebled, that the foods ordinarily in use can not be tolerated or digested by the stomach, he advised the use of concentrated animal foods in a fluid form and especially foods predigested by the use of pancreatine, pepsin, and diastase. And where the condition of the stomach is so extreme that food will not be tolerated by it, these forms of food should be administered by rectal alimentation.

AFTERNOON SESSION.

THE REPORT ON ADVANCES IN HYGIENE AND PUBLIC HEALTH

having been called for, Dr. Edwards announced the sudden death of the reporter, Dr. Wm. H. Coggeshall, of Richmond, on September 7th, just as he had finished his paper. By request Dr. Edwards read the paper.

After referring generally to the new inventions, and revivals of old methods intended for the use of the profession and public, in the matter of disinfection, especially in view of the threatened invasion of Asiatic cholera, the reporter had been able to find no subject of greater interest to himself, and he thought to the members generally, for a paper under this head, than

THE RECENT EPIDEMIC AT PLYMOUTH (PA.) AND THE LESSONS IT TEACHES.

He gave in full detail the particulars, and drew the following lessons from this peculiar epidemic:

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1. That from an exceedingly small and apparently trivial source of infection, danger to a large number of persons may arise in the course of a zymotic disease.

2. That whatever doubt could previously exist in the mind of any member of the profession regarding the power of previously pure running water to become an active carrier of typhoid infective germs, has by this epidemic been entirely dissipated.

3. That the uncleanliness and non-sanitary condition of a town or city prolong, in the direct ratio of their extent, the stay of an endemic or epidemic in such place.

4. That during a typhoid epidemic—and especially in its early stages—cases of the disease may, and do, occur, where the patient, having proper sanitation at home, receives the poison germs into the system by the simple imbibition of water containing such organisms elsewhere than at home, without his or her knowledge or suspicion.

5. That a town cannot afford to remain in an uncleansed condition, however remote danger from zymotic disease may otherwise appear, as such uncleanliness is a direct invitation to certain contagious and infectious diseases to establish a firm foothold in that place.

6. That a typhoid epidemic occurring in a city, once brought into existence from any cause, is easily enlarged and more fully developed by neglect of well-known and easily effected individual and municipal sanitary measures.

7. That the water supply of a town or city—notwithstanding the safeguards commonly thrown around it by the municipality—can easily be transformed, suddenly and unexpectedly, by contamination, into a poisonous condition for the uses of a community, from a source at once remote and individual.

8. That careful and thorough disinfection of the excreted matter—both liquid and solid—voided by a typhoid fever patient, is of the utmost importance to the health of the surrounding community, whether in city or country, but owing to lack of proper sewerage facilities, especially so in the latter.

9. That the physician practising in a rural district which is in any manner remotely or directly connected with the water supply of a corporation, should exercise more than ordinary precaution to see that such water supply is placed in no danger of receiving contamination from his patients, either actively or indirectly.

10. That although it has been the custom in past years to look upon the water of city wells in general as far more liable to hold contamination from poisonous organisms than water furnished from reservoirs, yet the "Plymouth epidemic" has shown that a condition exactly the reverse may exist.

11. That to eliminate all possibility of poisoning in this manner, from sewage or excretory matter, either through carelessness or ignorance, no human habitation should be allowed by law to exist near the source of a city's supply of drinking water.

Dr. Philip Taylor, of Richmond, read a

RÉSUMÉ ON OPHTHALMOLOGY AND OTOLOGY,

in which mention was made of the practical benefits to be derived from the use of jequirity in trachoma, with or without pannus, insisting upon the fact that chronic purulent conjunctivitis should not be present when jequirity is used. The late theory relative to the transmission of sympathetic ophthalmia, viz., by means of the intervaginal lymph spaces of the optic nerve, was given, and conclusions concerning the septic poison being conveyed by the ciliary nerves from the diseased or injured eye to the unimpaired organ—the once popular theory—were rendered.

Cocaine received notice as one of the most important strides that had been made in ophthalmology for many years. Its uses and effects were dilated upon. Numerous operations were referred to, that had been brought before the profession during the past year, notably one for pterygium, by Dr. Prince, of Illinois; another for evisceration of the eyeball as a substitute for enucleation, also one for the transplantation of the cornea, in case of considerable opacities rendering iridectomy impracticable. The danger of performing the operation for internal strabismus in the young, and making the correction absolute, pointing out the fact that as maturity comes on insufficiency is quite apt to follow, causing external squint. In otology some recent preparations for purulent ear troubles were discussed, especially peroxide of hydrogen. New style Eustachian catheters, and the method of using bougies for dilating the Eustachian tube, were approved. Connection between diseases of the teeth and ear was referred to, and statistics rendered, showing that sympathy existed between these parts.

Dr. Joseph A. White, of Richmond, then offered some

PRACTICAL REMARKS AND SUGGESTIONS IN REGARD TO DISEASES OF THE EAR, THROAT, AND NOSE, WITH REPORTS OF A FEW CASES.

Neglected suppurative middle-ear inflammation, he said, has ended fatally. To relieve the pain, use local leeching and warm applications, and drop into the ear a twenty per cent. solution of muriate of cocaine with sulphate of atropia, and give anodynes internally. He is satisfied cocaine acts as an anæsthetic upon the drum membrane, notwithstanding the contrary statements of some writers. Muriate of pilocarpin and sulphide of calcium ought to be given during the stage of exudation, but the use of pilocarpin in the ear during aural complications of the exanthemata should be carefully watched, for fear of causing paralysis of the heart. If pain is unabated and the tympanic membrane bulges, tap the posterior inferior quadrant, and, by aid of an air-bag, empty the tympanum. Keep the ear clean by frequent syringing with carbolated or borated solutions of sodium bicarbonate, and use Politzer's air-bag daily, so as to keep the Eustachian tube free. If pain persists, continue cocaine solutions, but now leave off the atropia, which is dangerous when the tympanic membrane is opened. Dust the drum once or twice a day with powdered boracic acid. Disease of the mastoid cells and of the brain is a frequent result of middle-ear diseases, and complete deafness is common. During scarlet fever, the earliest signs of ear complaint should attract attention. Topical leeching and sulphide of calcium internally, will often arrest threatened mastoid disease. Freely incise to the bone, or even trephine, if redness and pain continue.

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DR. CHARLES M. SHIELDS, of Richmond, read a report of a

CASE OF TRACHEOTOMY FOR LUPUS OF THE LARYNX AND DIPHTHERIA.

He said that only about a dozen cases of lupus of the larynx are mentioned in the text-books. His patient was a retired physician, aged about 55 years, who had suffered from hoarseness and pain in swallowing, but at no other time, for more than a year. His voice was reduced to a whisper, and he had dyspnœa. The laryngoscope showed general redness and congestion, with so much swelling of the right vocal cord and ventricular band as to render them undistinguishable. This growth was covered with small, pale, fleshy tubercles, and having superficial ulcerations between them. The gentleman never had syphilis, and there were no signs of phthisis, nor was carcinoma hereditary in the family; and, hence, all of these usual causes of laryngeal growths were excluded. The diagnosis of lupus was strengthened by the fact that he had had two or three suspicious small ulcerated growths upon his face and arm, which would not heal until they had been excised, and which were most probably the skin manifestations. He first took iodide of potash, and afterwards arsenic, and iodoform and bismuth were applied locally; but the lupus progressed, and the swelling and ulceration increased, until, seven months from the time he presented himself, his occluded larynx threatened suffocation. Both sides of the larynx were immensely swollen and covered with the pale elevations and ulcerations, and the aperture of the glottis was not visible. Tracheotomy was performed without chloroform, but the operation was rendered long and tedious by his short, thick neck, and the pushing down of the trachea by the enlarged larynx, so that very little space was left for the incision, and an extra long silver canula had to be used. Great relief followed the operation. He soon learned to remove, clean, and replace the entire tube without difficulty. He was doing well the following summer.

DR. SHIELDS also reported a successful

TRACHEOTOMY FOR LARYNGEAL DIPHTHERIA

in a girl three years old. After the fifth day, the amount of membrane in the larynx increased rapidly, and threatened death by suffocation. She was being treated with iron, quinine, and large doses of whiskey. The room was kept filled with vapor of lime. Tracheotomy was not consented to by the parents until the eighth day, when she was cyanosed, and the sternum was indrawn, and she was thought to be dying. The usual incision was made and the tracheotomy tube introduced, but all efforts at breathing stopped. Artificial respiration was resorted to, and the tube withdrawn again, when a piece of tissue in the lower angle of the wound was drawn out by the forceps, and proved to be a perfect cast of the trachea two inches long. The canula was again put back, and artificial respiration being continued, she began to make efforts to breathe. After this she did well for two days, when she breathed with more difficulty, until she coughed up through the tube another cast of the trachea. The edges of the wound were covered with diphtheritic membrane. No air passed through the larynx for nearly a week after the operation, and the tube had to be kept in three weeks before she could breathe comfortably through the natural channel. She made a good recovery.

DR. L. ASHTON, of Falmouth, made *A Plea for Tracheotomy in Croup*.

EVENING SESSION.

DR. J. S. CONRAD, Superintendent of Matley Hill Sanitarium, near Baltimore, Md., by invitation, read a paper on the

PSYCHOLOGICAL ASPECTS OF SUICIDE,

of which the following are the conclusions:

1. Suicide increases with the advance of civilization, and is but little known in the savage state of men.

2. The act is an intelligent one (?), done with a full consciousness of the act, as shown by the method of execution, whether by the sane or insane.

3. That suicide is done always for the purpose of escaping an evil, and for the benefit of the felo-de-se, whether by sane or insane.

4. That it is a voluntary act (?), whether by sane or insane.

5. That it is an emotional act, whether by sane or insane, however deliberately planned and executed, since deliberation enters into the mind of both mental states.

6. That delusions are not essential to the distinction as to the sanity or insanity of the suicide, since authorities affirm that delusions are not essential to the proof of insanity.

7. That suicide is rare in the first class (*Insanity*, by Maudsley), viz., intellectual or ideational insanity; but does occur in the vast majority of the second class, or affective or emotional forms of insanity.

8. Query. Is suicide an intellectual act, notwithstanding the intelligence exercised in its execution? Or is it an emotional act *per se*, since we have seen that the emotional part of mind dominates the ideational centres, and perverts the intellect into becoming its humble servant?

9. Does moral depravity satisfactorily account for it, when we have seen that moral depravity is a factor of both sane and insane?

10. That in doubtful cases of the sanity or insanity of the felo-de-se, very great caution is necessary in making up a just judgment as to the one or the other.

DR. W. R. CUSHING, of Shawsville, reported a case of

PREMATURE LIVE BIRTH WITH THE MEMBRANE INTACT,

in which the child lived some sixteen hours. He called attention to the effect that the possibility of such births must have upon the lung-test in deciding whether a child was born alive or not. Persons heretofore tried for infanticide have been admitted to be innocent whenever it could be proven that the child had never breathed. But in such a case as he here reported, the child could have been deliberately killed after being removed entirely from the mother, and still the condition of the lungs not only would not have testified against the party accused, but would have been admitted as conclusive evidence of innocence.

DR. WILLIAM C. DABNEY, of Charlottesville, read a paper on the

PHYSIOLOGICAL AND THERAPEUTICAL ACTION OF ANTIPYRIN.

In typhoid fever, two doses of ʒss each, at an hour's interval, usually produce a fall of two or three degrees

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which lasts from six to twelve hours, but the course of the disease does not seem to be modified by it, except that it soothes the patient, and he drops off to sleep. It lessens delirium to a considerable degree. It acts favorably upon the nervous symptoms generally, and it also cleans up the tongue. It is generally conceded to be useless in remittent. In puerperal septicæmia it gives good results, reducing the fever to normal temperature from 105°. Sixty grains in two cases caused a semi-comatose condition, and symptoms resembling those of carbolic acid poisoning. In scarlet fever, favorable results are reported, especially delaying the appearance of the eruption. Some say that in phthisis, it has given better results than all other antipyretic remedies combined. Others think its desirability in phthisis is questionable. It should be given with great caution in this disease for fear of inducing a collapse. Agaricine or atropia prevents its producing too much sweating. It acts unfavorably in pregnant women. The unpleasant effects of antipyrin are collapse and an eruption much like that of measles. The dose of antipyrin differs according to the disease. In phthisis from eight to fifteen grains, repeated every four to six hours, is sufficient. In typhoid fever, pneumonia, and the like, it has been recommended to give two doses of thirty grains each, at an interval of an hour, and an hour later still, give fifteen grains more; but more recently excellent results have followed doses of ten to fifteen grains every three or four hours. In children, the dose is a grain and a half for each year of the child's age. It may be given hypodermatically in dose of from ten to fifteen grains, or by enemata in doses of from forty to sixty grains. When used as a suppository, it is said to have an excellent effect on hemorrhoids.

Adjourned.

CORRESPONDENCE.

THE REPORT OF THE MEETING OF THE COMMITTEE ON THE INTERNATIONAL MEDICAL CONGRESS.

To the Editor of THE MEDICAL NEWS.

SIR: The following letter was addressed by me to the Secretary of the Committee on the International Medical Congress:

CHARLESTON, September 16, 1885.

TO DR. JOHN V. SHOEMAKER,
Secretary of the Committee of Arrangements for the International Medical Congress.

DEAR SIR: In the *Journal of the American Medical Association* for September 12th, there is a publication, under your signature as Secretary, of what is styled a "*Report of the Committee appointed to arrange for the meeting of the International Medical Congress in America in 1887.*" As a member of the Committee of Arrangements, present during the session of the Committee held in New York City on the 3d and 4th of September, I am not aware that you were instructed or authorized to make any other report than such a one as naturally pertained to your duties as Secretary. The correct and full report of the minutes of the meetings of the Committee it is most surely your duty to prepare, and the publication of such minutes, unless specially interdicted by vote of the Committee, seems to me to have been in order. Your "report," as published, is not the minutes of the meeting, nor does it fully or fairly represent these, as far, at least, as relates to the meeting in New York. As a member of the Committee, I think it due to the Committee, and to the profession of our country, that the full action of the Committee, which carries with it the animus or real intention which determined its work, should see the light of day. You will, therefore, pardon me if I appear intrusive, when I ask you to inform me if it is your intention to publish a detailed report of the minutes of the late meeting of the Committee, held in New York, on the 3d and 4th of September.

Very respectfully, R. A. KINLOCH,
Member of the Committee from South Carolina.

This letter was forwarded as far back as the 16th of September, but has failed to elicit a reply. I am, therefore, forced to conclude that I shall not have the courtesy of a reply, and that there will appear no official report of the minutes of the meetings of the Committee on the International Congress, notwithstanding the interest manifested in this matter by the profession. As a member of the Committee, however humble, I am not ashamed of any views I have expressed, or of any action I have taken. Nor do I desire to bear the sins, either of omission or commission, or to claim the fruits of the good work that may be the outcome of this body.

I accepted a position on the enlarged Committee created by the action of the American Medical Association at its late meeting in New Orleans, not because I approved of the action of the Association in its mode of dealing with the work of the original Committee of Eight, but because I recognized the obligation to serve the Association, and indulged the hope of sustaining a spirit of harmony, which I feared might be interrupted by the diversity of opinions coming of a too ponderous Committee of Arrangements.

That the Committee could best discuss the respective merits of men suggested for filling important offices in the Congress by sitting with closed doors, was an argument of some force; but it will scarcely be urged by scientific men, that the shortcomings of the body, the conduct and ruling of its officers, the time of its discussions, the policy of its actions, the views and the animus of its individual members should be guarded in the same way, and known only to unwritten history. Why then, I ask, this suppression of this much of the proceedings of the meetings? And by what authority does the secretary of the body undertake to report in the way that he has done? As I was absent from the meeting for a brief period prior to its adjournment, it is possible that the Committee may have instructed the secretary as to his course of action. If so, I can only at this late date raise my voice in condemnation of such a policy.

All the acts of the Committee were of course the result of a majority vote, and so far as it has worked for the supposed advantage of the Congress I prefer to say nothing. I trust that its action will prove satisfactory. But, while majorities rule, minorities have certain rights, and among these is the right to be put upon record. As an independent member of the Committee, I do not intend that my rights shall in all particulars be ignored. The verdict of a noble profession is something that I hold of inestimable value, the approval or disapproval of a court so constituted I am willing to accept, provided

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such is based upon my individual merits or demands. There was with me during all my connection with the Committee the proud desire to promote harmonious action, and thus save the American Medical Association and the profession of our common country from dissensions which threatened their well-being, if not the vital interests of both, and which already have, in part, subjected us to the censure, if not the ridicule, of our foreign brethren.

My first effort was at the informal meeting of the new members of the Committee at New Orleans, when I introduced the following resolution, after there had been presented several propositions, all of which, as seemed to me, were calculated to give some offence to the original Committee of Eight.

"*Resolved*, That the temporary officers of this meeting be instructed to correspond with the original Committee, expressing our desire to meet them at such time and place as may be agreed upon by the majority of the entire Committee."

The original Committee had worked laboriously and deserved something of the Association. If they had committed errors, they could not escape criticism, but with members of a common brotherhood, looking to scientific progress, criticism need not give offence. No proper feeling brother desired to add to the mortification or irritation which naturally attached to the members of the original Committee, when there were appointed additional members to their body, for the purpose of reviewing their work. The object of my resolution then was to try at the outset to establish friendly relations with the original body. The new members were merely *material added to this*. The original Committee was the fully organized body. It had not been abrogated, nor was its organization changed by the recent action of the Association. A cautious word from the temporary officers elected by the new members, if these officers were capable of appreciating the spirit of my resolution, was really the first and surest way of harmonizing the new with the old members of the Committee.

Drs. Flint and Billings were the officers of the Committee of Eight. They were also, now, the officers of the enlarged Committee, until that Committee should meet and decide to supplant them. It rested, then, with these gentlemen to call the Committee together; *the duty pertained to none others*.

Some confusion arose in regard to the function of the Committee as enlarged, and as to the attitude of the original Committee to the Association. The members of the original Committee naturally desired time for conference and careful conclusion. This should have been accorded them. But, unfortunately, the temporary officers of the meeting at New Orleans incorrectly estimated their position, and failed to perceive that harmony was necessary for professional unity, and unity essential to the scientific interests of the Congress. The function of these temporary officers had ceased after they had carried out the instructions given them by my resolution. And yet they magnified their recent position, forgot the spirit of their instructions, ignored the existence of the President and Secretary-General of the Committee, transferred the headquarters of the Committee from Washington to Philadelphia, called for the vote of all the members of the Committee, as to time and place of meeting, and resolved to meet at Chicago on the 24th of June. Strange to say, it does not seem to have occurred at that time to any of the members of the Committee, besides myself, that these temporary officers of the New Orleans meeting had committed a bold and unjustifiable act. This was painfully evident to me, however, for I saw at once that the letter and spirit of my resolution had been trampled under foot, and I lost hope in the success of the Congress.

The call for the Chicago meeting, made in the name, or under the authority, of my resolution, seemed to be accepted by the Committee as right and proper. I alone protested and refused to vote. My protest was sent to the *Association Journal*, but reached the Editor too late, as he informed me, for the issue which immediately preceded the time of meeting of the Committee. As a final effort, I wrote an earnest letter to Drs. Cole and Shoemaker, and insisted that my views should be presented to the meeting in the event of my failing to be present. The meeting was held at the time specified, *but my letter or views were not mentioned*.

The result of the Chicago meeting is known to the profession. I was unavoidably absent, and subsequently shared only in the general regret that the character of the work done necessitated its reconsideration. The meeting at New York was called partly for this purpose. I was present, and at the earliest moment I claimed the privilege of having recorded upon the minutes the letter which I had written to the *Association Journal*, and which explained fully my views as to the unjustifiable action of the temporary officers in calling the Chicago meeting. I also made the public statement as to the failure of these officers to bring my letter before the Committee at Chicago. Through the failure of the Secretary to publish the minutes of the New York meeting my views were again suppressed, and hence the unpleasant necessity of having now to justify my action. It is due to the officers of the meeting to say that they disclaimed any intention of purposely suppressing my letter at Chicago, but, at the same time, they offered no very satisfactory reason for their singular omission.

The next matter which duty to myself compels me to notice has reference to the alteration of the rule, as adopted at Chicago, determining the American membership of the Congress. This rule had been fixed, as was claimed, *in obedience to the voice of the American Medical Association*, so as to restrict the membership on ethical grounds. The determination of a few adroit members of the Committee was now to undo what had been done, and in their own peculiar way. By management more suitable for a political than a professional or scientific body, and which I will not now comment upon, the rule, as prepared for presentation to the Committee, which it was claimed opened the Congress to all members of the regular profession, was finally brought before the body. I asked the gentleman who had introduced the subject whether, under the proposed rule, all members of the Congress would be alike eligible for office, and whether he would favor the election of any member of the profession simply upon his merits, or whether there was not a mental reservation upon the part of those suggesting the change by which, upon ethical grounds, certain members would be members merely, and debarred from holding office.

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The answer came, that in accordance with the "resolution" of the American Medical Association certain parties must be refused high position. I asked for the reading of the "resolution" referred to. I wanted to know whether the Association had ever drawn any such fine distinction, opening the membership to all, but restricting the distribution of honors. It turned out that there was no such resolution ever adopted by the Association. I then maintained that if the Association and its implied sentiment were to guide the Committee upon this occasion, it was more consistent to hold on to the Chicago rule than to accept the amendment as now proposed. I offered to support the amendment with all my heart if this was honestly offered, and if the mover would amend it further by stating that all members were equally eligible for office, or if he would agree to show that, practically, all were eligible by voting for men on their merit and regardless of ethical standing. If this was declined, I insisted I could not vote for the amendment, for I would not pretend to offer bread and give a stone. My proposition was not accepted, but the new rule was adopted without my vote, and *all in the name of the Association.*

One other point deeply interested me, and determined my rejection of office. It was well known that the rule, as adopted at Chicago, which restricted the membership of the Congress upon ethical grounds, had occasioned the resignation or withdrawal of many of the best and strongest men in the profession, regardless of their views on the code question. A conciliatory spirit on the part of the Committee, as now newly constituted, was of supreme importance, for we could ill afford to do without so many of the good minds of the country. Under the resolution of the Association, the Committee had power to fill all vacancies occurring in its own body, and to appoint officers to the Congress. This was regarded as implying the right to accept resignations from positions which had been previously filled by the original Committee of Eight, or by the present enlarged Committee at its meeting in Chicago. The work of filling vacancies was being pressed on, *when the Committee had no knowledge of resignations except the mere verbal report of the Secretary.* The idea seemed not to have occurred to any one that all letters of resignation should be read before the Committee, or that courtesy and justice to the parties sending such letters demanded such reading. It looked as if the officers of the Committee, and not the Committee itself, were, to use a trite expression, "running the machine." I desired, naturally enough I thought, to know the reasons for the resignations which had been sent in to the Secretary, and therefore asked for the reading of the letters. We were surprised to learn from the Secretary that the letters had been left in Philadelphia, and, besides, that they were so numerous that there would scarcely be time for their reading. I nevertheless urged that the telegraph should be used to insure the letters' reaching us in due time. The Secretary finally arranged to send a special messenger for the papers, and they arrived in time for the second day's session. I now again called for the reading of the letters. They were, under resolutions offered in plea of press of business, twice put upon the table to await convenience. But at last I succeeded in having a few letters read. I heard enough to conclude that if the obstructions to membership, and to the honors of the Congress were really removed, and a proper spirit of conciliation evidenced by the Committee, most useful men could yet be saved to the Congress. Meantime the work of filling the so-called vacancies in the most important offices had continued without any questions as to the acceptance of resignations. The spirit of vindictiveness (I regret to have to use the term) under the presumed offence given by the parties who had proposed to withdraw, seemed to me to be irrepressible, so I could not consent to occupy the position of Vice-President in the Surgical Section which had been assigned me, both by the original Committee and the present one. As an unavoidable engagement precluded my presence at the meeting of the Committee towards the close of the session when the list of Vice-Presidents of the Sections was up for consideration, I left with a member of the Committee my written reasons for declining office. These were read, but of course suppressed with other portions of the minutes.

In conclusion, let me state that I think it not unlikely that some of my professional brethren will charge me with egotism, and condemn the course I have pursued in thus publicly announcing personal grievances. This I shall regret, but I apprehend there will be many who will agree with me that personal grievances may be blended or indissolubly connected with the interests of the whole profession. Had I not regarded those which I have here recorded as of that category, I should never have adverted to them.

One word in relation to the gentlemen constituting the enlarged Committee. Many of them are my personal friends. I dispute not the right of individual opinion. I claim no superiority over my brethren, but my own convictions are strong and sincere. There are many of the Committee whom I know to be as conservative as I claim to be. I feel grateful to some for the support I received while striving to modify the determined policy of the majority. I intend no offence to the Committee as a whole, unless it be an offence to offer the assurance that now and ever I do not mean to allow my individuality to be destroyed.

R. A. KINLOCH,
Member of Committee from South Carolina.

CHARLESTON, Oct. 1, 1885.

THE DANGER OF DOUBLE OVARIOTOMY.

To the Editor of THE MEDICAL NEWS.

SIR: In a paper which I have just read, by Professor Ransohoff, I find the following sentence: "It must be remembered in this connection that the removal of the second ovary adds very much to the danger of the operation. While from single ovariotomies Wells and Koeberlé show a mortality of 22 per cent., the former in eighty-two double ovariotomies has lost 34 per cent., whereas 51 per cent of those operated on by Koeberlé, for bilateral ovarian disease, have died." Would you allow me to point out that this mortality has nothing whatever to do with the fact of both ovaries being removed, but is entirely due to the fact that the clamp was the means by which the pedicle was treated. This is completely established by a recent publication of mine in *The Provincial Medical Journal* for the 1st September, in which I published a series of 112 consecutive cases of ovariotomy without a death. This included 49

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cases of cystoma of one ovary; 21 cases of single parovarian cystoma, and 35 cases of removal of both ovaries for cystoma, and all these without a single death. This, in the whole of my previous experience of abdominal section now amounting to over 1200 cases, shows conclusively that all the disasters that we had, and all the irregularities in our results, were due to the clamp, and to the clamp alone. If an abdominal wound could not be accurately closed when one pedicle was dragged outside, it stands to reason that if there were two pedicles clamped, the likelihood of accurate closure was much diminished, and therefore the chances of death were more than doubled. This was the fact in Sir Spencer Wells's practice. But the moment the clamp was given up the reduction of mortality was enormous, and not the slightest difference is discernible between removal of two ovaries and removal of one. This fact must very materially modify the conclusions which are enunciated in Professor Ransohoff's paper.

I am, sir, yours, etc.

LAWSON TAIT.

BIRMINGHAM, September 20, 1885.

NEWS ITEMS.

NEW YORK.

(*From our Special Correspondent.*)

PROFESSIONAL COMPENSATION.—A propos of the Hoyt will case that is being summed up before the Surrogate, it is stated upon good authority that the two "experts" who appeared for Miss Hoyt, the contestant, demanded respectively five and ten thousand dollars for their services, and were paid. Despite this windfall, bad luck seemed to follow, for one tried to shoot his wife, and is now in an insane asylum as a patient, and the other died a few weeks afterward. The case was "run" in the beginning by one Aaron Kahn, who left the congenial occupation of pawn brokerage for the bar. His bill, which was contested by his successor in behalf of Miss Hoyt, was $60,000, one item of $3000 being asked for one hour's attendance at the police court upon the occasion of Miss Hoyt's arrest.

POST-GRADUATE INSTRUCTION.—Both post-graduate schools are prosperous, and the promises held out are excellent. The Polyclinic has engaged Dr. F. S. Billings, an excellent pathologist, who has been with Virchow for some years and who is specially recommended by him to the school.

WASHINGTON.

(*From Our Special Correspondent.*)

YELLOW FEVER IN BOSTON.—It is officially reported from Boston, Mass., that four seamen of the steamer Craighill, which arrived at that port from Colen on the 24th ultimo, are now at Gallup's Island Hospital with well-defined symptoms of yellow fever. Two of the patients are quite sick, but it is thought that all will recover. The captain died of the same disease on the voyage, but it was thought then to be malarial fever.

SMALLPOX IN FALL RIVER.—Several cases of smallpox were discovered on the 31st ultimo in Fall River, Mass., and in a small interior town in the State. The former cases have been traced directly to Canada.

OTHER RESIGNATIONS FROM THE CONGRESS.—Prof. H. Newell Martin, of Johns Hopkins University, has declined the Vice-Presidency of the Section of Physiology.

The *Atlanta Medical and Surgical Journal* announces that Dr. Robert Battey has resigned the Presidency of the Section of Gynecology.

GOVERNMENTAL INVESTIGATION OF CHOLERA IN SPAIN.—The President has issued an executive order directing Dr. E. O. Shakespeare, of Pennsylvania, "to proceed, under the direction of the Secretary of State, as the representative of the United States, to Spain and other countries in Europe, where cholera exists, and make investigation of the causes, progress, and proper prevention and cure of the said disease, in order that a full report may be made to Congress during the next session." Dr. Shakespeare sails to-day for Europe.

SURGEON-GENERAL HAMILTON.—It is announced that, in accordance with the request of the President, Dr. Hamilton has withdrawn his resignation as Surgeon-General of the Marine-Hospital Service.

PUBLIC OPINION ON THE CONGRESS ORGANIZATION.—The nominations of new presidents of the Sections seem, in the majority of instances, most extraordinary. We are near enough to the States, and familiar enough with American literature, to know pretty well the names of the leaders in the different departments of medicine and surgery, but of the seventeen names of chairmen of Sections, there are twelve absolutely unknown to us as representatives in their different departments. We ask of many, in blank astonishment, Who are they? What have they done? Where do they live? Truly the committee is sunk low when it must place such men at the head of important Sections in an international gathering. The contrast between some of the past and present nominees would be simply ludicrous, were it not painful.

The Association is determined to have the Congress, . . . but the leaders of the profession, and the workers who have made American medicine and surgery known here and in Europe, are not in it. The play will go on, but with Autolycus disguised as Hamlet. —*Canada Med. and Surgical Journal.*

As the welfare of the next International Medical Congress is not a matter solely of American interest, it seems to us to have been the bounden duty of individual men in Europe, and of the European medical press generally, to point out to what extent the organizers of the Washington Congress were departing from the established precedent, which, at any rate, has the argument of unbroken success in its favor. Dr. Davis complains that "the outside world" animadverted on the conduct of the American Medical Association before hearing both sides of the question. It may be replied to that complaint, first, that the action of the Association in disregarding the precedent of previous congresses, and monopolizing the conduct of the Washington meeting, was in itself a sufficiently accomplished fact to warrant any amount of European animadversion; secondly, that the subsequent action and arguments of the supporters of the Association have served rather to weaken

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than to strengthen their case; and, thirdly, that it may be fairly assumed that the publication of European criticisms has had a measurable share in determining the new Committee of Organization to reconsider the whole question at issue during the present month, instead of deferring it, as originally intended, until next spring.

The objection still remains that the American Association, in taking charge of the Washington Congress, has introduced an innovation in the conduct of International Medical Congresses which is distinctly a matter for international criticism, and, in our deliberate opinion, for international condemnation.

But the further action of the American Association proves better than anything how wise has been the precedent of previous congresses and how ill-advised the attempt to break through it. One of the first acts of the American Medical Association when it got hold of the Congress was to insist that only those in accord with the National Code of Ethics should become officers of the Washington meeting, and as a result of this, many practitioners whose names are household words to us, and who are described by Dr. Noyes in a published letter as "the brightest lights and best workers in the profession," have been expelled from all official connection with the Congress. By that action, the Association at once broke the pledge deliberately given at Copenhagen, relit the old Code dispute, and attempted to score a point against the "new-coders," by enlisting against them the European visitors to the Congress. The full and final results of this policy have yet to be seen, but its first fruits, in the form of an electioneering manifesto published by the Association and sent to us by its representative, Dr. Shoemaker, are not particularly reassuring. This manifesto is headed, *more Americano*, "Pennsylvania sustains the Code of Ethics," and then follows a long list of practitioners in that State, all of whom profess to endorse heartily the action of the Association in raising the Code question. We need hardly add that this single official leaflet will do more to deter respectable English practitioners from taking part in the Washington Congress than all "the statements of certain medical journals and private parties in Philadelphia and New York," of which Dr. Davis so bitterly complains in his letter to Sir W. McCormac. In our opinion, the time has now come for the officers of past International Medical Congresses to meet together, and decide that, unless the pledge given at Copenhagen is kept, and all attempts to embroil the Congress in ethical disputes are unconditionally given up, the acceptance of the invitation to meet at Washington should be rescinded, and arrangements made to hold the Congress of 1887 in a country where the medical profession possesses greater solidarity.—*Medical Times and Gazette.*

It is evident that the work done by the Committee of the International Congress, at its secret meeting in this city, is an utter failure. The Committee has won over no new friends, but, on the other hand, withdrawals continue to be made. We believe that there is no exaggeration in saying that there are not half a dozen representative men in the profession now who are prominently connected with the organization of the Congress.

The attempt to hold an international meeting under such circumstances seems certainly very wrong, while, if affairs continue on as at present, there will be a collapse of the whole affair before the year 1887. It is known that some of the gentlemen who withdrew from the Congress did so partly because they found that they could not get coöperation at home or abroad; they could not organize Sections so as to secure successful work, and this difficulty must steadily increase.

Beyond all this, the obstinate conduct of the gentlemen who are trying to arrange the Congress on American Medical Association principles is arousing a constantly stronger indignation among the profession at large. It is clearly seen that their perversity and disloyalty are bringing discredit upon American medicine. —*Medical Record.*

The body which calls itself the Organizing Committee of the International Medical Congress of 1887, has, we are sorry to see, refused to adopt the conciliatory policy which alone can make the Washington Congress a success. It met at New York on the 3d instant, and though all reporters were sedulously excluded, enough has leaked out to assure us that the letters of the President and Secretary of the London Congress, and the articles of the large majority of medical journals, might just as well have not been written.

No attempt, it will be seen, was made to heal the differences that have been aroused in the profession by the revival of the Code question, and the American Medical Association still clings to its usurped position.

The more one considers the question, the more fatal do the objections appear to the principle of allowing a preëxisting medical association to play the sole part in organizing an International Congress. No medical organization whose aims are not purely and exclusively scientific can ever be truly representative of medical science. The men who are the real workers in the field of medical research, and who are therefore the only proper representatives of the profession in a scientific meeting like the International Congress, are hardly ever found playing a leading part in associations of a medico-political nature. Quite properly they leave such functions to those of their brethren who have business proclivities and time upon their hands. The latter class may be admirably fitted for the work of conducting a large medical association, but they are not qualified to greet on even terms the medical investigators of the world, and we doubt even if they are competent to decide who are best qualified to give that greeting. Thus there is always the risk, exemplified in the United States just now, of their dragging the political and ethical questions that are nearest to their hearts into competition with purely scientific questions. The only safe way of organizing a successful International Congress in any country is to leave it in the hands of the leading scientific men, who are known and acceptable, not only to the hosts of the Congress, but also to its guests. —*London Medical Times.*

Obituary Record.—Died, at his residence in Lancaster, Pa., on Thursday, October 1st, John Light Atlee, M.D, in the 86th year of his age.

Dr. Atlee enjoyed remarkably good health until about two years ago, when he had an attack of paralysis, from which he never recovered, and an attack of pleurisy a few days ago hastened the end.

Dr. Atlee was born in Lancaster on November 2,

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1799, and was the son of Col. William Pitt Atlee, a Revolutionary officer. He was educated in Lancaster and Philadelphia; read medicine under Samuel Humes, and graduated from the University of Pennsylvania in 1820. After graduation he went to Pittsburg with the intention of settling there, but returned to Lancaster and began the practice of medicine in the latter part of the same year. The period of his practice has extended over a period of 65 years, and has been large and lucrative from the start. He soon became very successful in surgical operations, and in this branch of his profession his reputation was widespread. Dr. Atlee's operation for double ovariotomy in 1843 was the first in the history of medicine, and the patient is still living in this city in good health.

He was one of the founders of the Lancaster City and County Medical Society in 1843, and twice served as president. In 1848 he assisted in organizing the State Medical Society, and became its president in 1857. He was also one of the organizers of the American Medical Association in Philadelphia in 1847, was elected Vice-President in 1865, and President in 1882. He was Professor of Anatomy and Physiology in Franklin and Marshall College for many years; was School Director for 40 years; was President of the Board of Trustees of the State Lunatic Asylum at Harrisburg; was Associate Member of the College of Physicians, Philadelphia; was elected Honorary Fellow of the American Gynecological Society in 1877, and was trustee of numerous public institutions. He was a valued contributor to the *American Journal of the Medical Sciences*, and other medical periodicals.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, FROM SEPTEMBER 29 TO OCTOBER 5, 1885.

MCPARLIN, T. A., *Colonel and Surgeon.*—Directed to transfer his duties and the public funds, for which he is accountable as Assistant Medical Purveyor, to Captain Henry Johnson, Medical Storekeeper, who will, in addition to his present duties, temporarily perform the duties of Assistant Medical Purveyor, N. Y. City.—*S. O. 223, A. G. O.*, September 29, 1885.

CALDWELL, D. G., *Major and Surgeon.*—Ordered from Fort Laramie, Wyoming Territory, to Fort D. A. Russell, Wyoming Territory.—*S. O. 97, Department of the Platte*, September 28, 1885.

BARTHOLF, J. H., *Captain and Assistant Surgeon.*—Ordered from Fort Ringgold, Texas, to Fort McIntosh, Texas, for duty as Post Surgeon.—*S. O. 125, Department of Texas*, September 28, 1885.

BRECHMIER, Louis, *Captain and Assistant Surgeon.*—Ordered from Fort D. A. Russell, Wyoming Territory, to Fort Laramie, Wyoming Territory.—*S. O. 97, Department of the Platte*, September 28, 1885.

MACAULEY, B. A. B., *First Lieutenant and Assistant Surgeon.*—Relieved from duty at Fort A. Lincoln, Dakota Territory, and ordered for duty at Camp Poplar River, Montana Territory.—*S. O. 105, Department of Dakota*, September 21, 1885.

KREUDLER, WM. L., *First Lieutenant and Assistant Surgeon.*—When relieved from duty at Camp Poplar River, Montana Territory, by Assistant Surgeon Macauley, to report to commanding officer Fort Snelling, Minnesota, for duty.—*S. O. 105, Department of Dakota*, September 21, 1885.

WALES, P. G., *First Lieutenant and Assistant Surgeon.*—Relieved from temporary duty at Boise Barracks, and ordered for duty at Fort Cœur d'Alene, Idaho Territory.—*S. O. 160, Department of Colorado*, September 21, 1885.

EWING, C. B., *First Lieutenant and Assistant Surgeon.*—Relieved from duty at Fort Stanton, New Mexico, and ordered for duty at Fort Lavenworth, Kansas.—*S. O. 147, Department of Missouri.* September 25, 1885.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY FOR THE WEEK ENDING OCTOBER 3, 1885.

JONES, WILLIAM H., *Surgeon.*—To Navy Yard, League Island, Philadelphia, October 15, as the relief of Medical Inspector Michael Bradley.

BRADLEY, MICHAEL, *Medical Inspector.*—Detached from Navy Yard, League Island, Philadelphia, October 15, and placed on waiting orders.

OWENS, THOMAS, *Assistant Surgeon.*—To Naval Station, New London, Connecticut, as the Relief of Surgeon William A. Corwin.

CORWIN, WILLIAM A., *Surgeon.*—Detached from Naval Station, New London, Connecticut, and ordered to the U. S. Steamer "Adams," October 31.

MAGRUDER, A. F., *Surgeon.*—Ordered to the U. S. Steamer "Yantic" without delay, as the relief of Surgeon H. L. Law.

LAW, H. L., *Surgeon.*—Detached from the U. S. Steamer "Yantic," and wait orders.

SIMON, W. J., *Surgeon.*—Detached from the Naval Academy, October 1, and wait orders.

DRENNAN, M. C., *Surgeon.*—Detached from the Naval Academy, October 1, and wait orders.

CABELL, ARTHUR G., *Passed Assistant Surgeon.*—To the U. S. Steamer "Adams," October 31.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE-HOSPITAL SERVICE, FOR THE WEEK ENDING OCTOBER 3, 1885.

BAILHACHE, P. H., *Surgeon.*—Detailed as Chairman of Board for the Physical Examination of Officers of the Revenue Marine Service, September 28, 1885.

VANSANT, John, *Surgeon.*—Order to New Orleans, Louisiana, revoked; to proceed to St. Louis, Missouri, October 2, 1885.

PURVIANCE, GEORGE, *Surgeon.*—To proceed to Louisville, Kentucky, as Inspector, October 1, 1885.

GASSAWAY, J. M., *Surgeon.*—Detailed as Chairman of Board for the Physical Examination of Officers of the Revenue Marine Service, October 3, 1885.

GODFREY, JOHN, *Surgeon.*—Order of September 16 amended; to proceed without delay to Louisville, Kentucky, September 28, 1885.

GOLDSBOROUGH, C. B., *Passed Assistant Surgeon.*—Order of September 16 amended; when relieved to proceed to Chicago, Illinois, October 1, 1885.

IRWIN, FAIRFAX, *Passed Assistant Surgeon.*—Detailed as Recorder of Board for the Physical Examination of Officers of the Revenue Marine Service, September 28, 1885. To examine physically and instruct crews of the Life Saving Service, Third District, in the method of restoring the apparently drowned, October 3, 1885.

BANKS, C. E., *Passed Assistant Surgeon.*—Detailed as Recorder of Board for the Physical Examination of Officers of the Revenue Marine Service, October 3, 1885.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLVII. SATURDAY, OCTOBER 17, 1885. No. 16.

ORIGINAL ARTICLES.

RELATION OF HERPES GESTATIONIS AND CERTAIN OTHER FORMS OF DISEASE TO DERMATITIS HERPETIFORMIS.[1]

BY LOUIS A. DUHRING, M.D.,

PROFESSOR OF SKIN DISEASES IN THE UNIVERSITY OF PENNSYLVANIA.

IN my original communication on Dermatitis Herpetiformis, read before the American Medical Association,[2] that disease was described, and its symptoms and several varieties given. It was there stated that the pustular variety is the same manifestation as the affection described by Hebra as "impetigo herpetiformis." This latter subject has more recently been elaborated by me in a paper read before this Association[3] at its last meeting.

On the same occasion I presented a "Preliminary Note on the Relation of Dermatitis Herpetiformis to Herpes Gestationis and Other Similar Forms of Disease,"[4] which communication embodied the results of considerable research into literature bearing upon the subject. It was there stated, as had been intimated in my previous articles, that so-called herpes gestationis, as well as certain other similar forms of eruption, reported with various titles, are all instances of one process, namely, dermatitis herpetiformis, as I had defined this disease.

The remarks about to be made must be regarded as supplementary to the preliminary note referred to, since presenting which I have been able to investigate further and collate the notes of some of these cases, which I desire now to bring forward in substantiation of my statement. It will be observed that the clinical features of the cases bear a strong resemblance to one another. It will not be necessary, however, for my purpose to quote all the cases *in extenso*.

The object of this communication will be to show:

1. The identity of so-called herpes gestationis with the vesicular variety of dermatitis herpetiformis.

2. That certain other forms of so-called herpes reported with various titles are likewise manifestations of the same variety of this disease.

3. That certain cases reported as "peculiar forms of pemphigus" must also be viewed as examples of the vesicular or bullous varieties of this disease.

4. That instances of dermatitis herpetiformis are also to be found in literature under the title "hydroa" and under divers other captions.

In view of the fact that the general features of dermatitis herpetiformis have been so fully described by me, and, moreover, that numerous examples of the disease portraying the more important varieties of the process have been reported during the past year,[1] it will not be necessary to reconsider the disease on the present occasion beyond pointing out the principal features of the two varieties which concern this paper, namely, the vesicular and bullous. The following is an abstract of the original description of the vesicular variety.

It is characterized by variously sized, varying from a pin-head to a pea, flat or raised, irregularly shaped or stellate, glistening, pale-yellowish or pearly, usually firm or tensely distended vesicles, as a rule, unaccompanied by areolæ. In their early stages they can be seen only with difficulty, and are liable to be overlooked in the examination. Sometimes they can only be detected or seen to advantage in an oblique light In size they vary extremely, large and small being formed side by side, and in this respect they differ from the vesicles of eczema. Here and there papules, papulo-vesicles, vesico-pustules, and small blebs will sometimes be encountered. The eruption as a whole is disseminate, the lesions existing scattered more or less profusely over a given region, as, for example, the neck or the back, but they are for the most part aggregated in the form of small clusters or groups of two, three or more; or there may be patches here and there as large as a silver dollar, upon which a number will be seated. When in close proximity they incline to coalesce, as in herpes zoster, forming multilocular vesicles or small blebs. Where this occurs they are generally slightly raised and are surrounded with a pale or reddish areola, which shows forth the irregular, angular or stellate outline of the lesion. At this stage, moreover, the little cluster will generally present a "puckered" or "drawn up" appearance, indicative of its herpetic nature. The eruption is usually profuse, sometimes to the extent of the upper extremities, trunk and thighs being well covered. It may attack any region, but the neck, chest, back, abdomen, upper extremities and thighs are especially liable to invasion.

The most striking symptom is the itching. Not infrequently burning is also complained of. Itching, however, predominates, and is violent or intense. It is altogether disproportionately in excess of the amount of eruption. It is, moreover, a persistent itching, causing the sufferer to scratch constantly. It generally precedes the outbreak, and does not abate until the lesions have been ruptured. From my observation I should say that it is usually more severe and more lasting than

[1] Read before the American Dermatological Association at the Ninth Annual Meeting, August 27, 1885.

[2] Journal of the American Medical Association, Aug. 30, 1884.

[3] American Journal of the Medical Sciences, Oct. 1884.

[4] Published in THE MEDICAL NEWS, Nov. 22, 1884.

[1] Notes of a Case of Dermatitis Herpetiformis Extending over Eleven Years, Illustrating the Several Varieties of the Disease. Philadelphia Medical Times, July 12, 1884.

Case of Dermatitis Herpetiformis (Multiformis) Aggravated by Pregnancy and Irregular Menstruation. THE MEDICAL NEWS, July 19, 1884.

A Case of Dermatitis Herpetiformis (Bullosa). The New York Medical Journal, July 19, 1884.

Case of Dermatitis Herpetiformis, Illustrating in Particular the Pustular Variety (Impetigo Herpetiformis of Hebra). Journal of Cutaneous and Venereal Diseases, Aug. 1884.

Notes of a Case of Dermatitis Herpetiformis During Thirteen Years. The N. Y. Med. Jour., Nov. 15, 1884.

Case of Dermatitis Herpetiformis, with Peculiar Gelatinous Lesions. THE MEDICAL NEWS, March 7, 1885.

Case of Dermatitis Herpetiformis Caused by Nervous Shock. Amer. Jour Med. Sci., Jan. 1885.

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in vesicular eczema. The vesicles generally make their appearance slowly, so that several days or a week may be required for their complete development. Notwithstanding the fact that scratching is indulged in in the early stages of the disease, excoriations are not prominent, owing to the fact that the lesions do not readily rupture, and, also, that they incline to refill immediately on being evacuated.

If we look into the subject of herpes gestationis, it will be found that the term was introduced by Milton in 1872. Previous to this date, in 1867, Erasmus Wilson[1] gave brief notes of two examples of a disease which he designated "herpes circinatus bullosus," considering them in a chapter devoted to the "chronic forms of herpes." In both cases the disease was associated with pregnancy, beginning with conception and ending with the completion of parturition. Mr. Wilson describes them as follows: "Both cases were remarkable for perpetual irritation and intense pruritic suffering. The bullæ were of the flat and foliaceous kind, some filled with limpid serum and others with a mucopurulent fluid, and were associated with moist excoriations, thin crusts, papulæ, and pruritus. In one patient the cutaneous disease was the first intimation of pregnancy; the disease continued during the whole period, accompanied four or five pregnancies in succession, and completely exhausted her strength and health. In other respects, and in the intervals of being pregnant, she was a strong and healthy woman. The other patient was a woman aged thirty-six, the mother of nine children. The eruption made its appearance with the fourth pregnancy, and has accompanied every pregnancy since. When parturition was over the eruption ceased; but on the last occasion, nine months ago, it remained, and has now assumed a permanent character. In both cases the eruption was accompanied with sympathetic gastric disturbance and with a duskiness and cachexia of the skin."

It is evident that the cases illustrate the "herpes gestationis" of certain more recent writers, and, as I have stated elsewhere, that the disease is the same as described later by Hebra under the titles "herpes impetiginiformis" and "impetigo herpetiformis." It must be remarked, however, that Wilson gives no special account of the lesions, nor of the peculiarities of the disease, and it is doubtless for this reason that the attention of dermatologists was not fairly directed to the subject until Milton's report of a case in the *Journal of Cutaneous Medicine*, Vol. i., No. 3, the paper being designated "on certain unusual forms of vesicular eruption," and the disease classed as an example of the "herpes circinatus bullosus" of Wilson. In Milton's work on the "pathology and treatment of skin diseases,"[2] published a few years later, this case is again brought forward, on this occasion with the name "herpes gestationis."

The disease occurred in a woman aged forty-five, who was in the fourth month of her eighth pregnancy. It began with intense itching, smarting, and heat of the skin of the arms and forearms, upon which parts a vesicular and bullous eruption soon developed. The lesions were the size of a small pea, and generally in groups of two to four. They were mostly prominent and pointed in shape, but some were oblong with the ends apparently communicating. The disease developed rapidly, so that in a few days the greater part of the body was involved. There was constitutional disturbance, and the local irritation was most distressing. Two weeks after delivery she was on the road to recovery. She had had similar attacks twice previously, with her first and fifth pregnancies.

We next meet with Bulkley's case,[1] which he, likewise, designated "herpes gestationis," adopting the name proposed by Milton. The case was that of a married woman, thirty-two years of age, who was confined with her first child. The cutaneous manifestations appeared two months previous to her delivery, on the hands and feet, and subsequently involving the greater part of the general surface. It began in the form of papules, which rapidly passed into vesicles, and later blebs developed. The vesicles, which were generally in groups, varied in size from very minute elevations to large blebs. After they had ruptured a brownish stain remained There was at no time any resemblance to vesicular eczema, nor did the lesions pass into pustules. The eruption was attended with intense itching, and later with much prostration and considerable fever.

The disease disappeared after delivery, but recurred with her second pregnancy.

If we look into the four cases just quoted, it will be seen that they resemble one another closely in their clinical features, and that the cause (pregnancy) in all was the same, from which fact both Milton and Bulkley concluded that the term herpes gestationis was expressive and appropriate. This name, as is well known, has since been employed by other observers reporting like cases, and would not be criticised were it not for the fact that the affection is also encountered in men,—an observation which my articles and several of my published cases show; also that it may occur associated with other primary lesions than vesicles, thus rendering the name herpes inappropriate and misleading. The name proposed by Mr. Wilson is even more descriptive than herpes gestationis, and has the advantage of being noncommittal as to the etiology of the process. But the term is not sufficiently comprehensive to include other known manifestations of the same extensive pathological process which cannot be regarded either as varieties of herpes (as this term is understood by dermatologists) nor as having either circinate characteristics or blebs. Thus, we note that while the titles proposed by these observers answered the purpose provisionally, recent studies have demonstrated that this form of disease is but one variety of an extended multiform cutaneous process.

Several other cases, some of them possessing peculiarities, may be cited.

Beverhout Thompson gives brief notes of a case[2] of "herpes gestationis," following Milton and Bulkley, which must be looked upon as the mildest expression of the disease. The patient was a woman, aged

[1] Diseases of the Skin, 6th edition, p. 294. London, 1867.
[2] London, 1872.

[1] Amer. Jour. of Obstetrics, Feb. 1874.
[2] Archives of Dermatology, Oct. 1875.

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twenty, in the eighth month of pregnancy, the eruption consisting of grouped vesicles and blebs, which were confined to the fingers, toes, backs of hand and wrists, feet and ankles. The attack was an acute one, recovery taking place after delivery, which occurred three weeks after the beginning of the cutaneous manifestations.

With the title "clinical remarks on a case of herpes gestationis," Liveing[1] reports a case that had been under his observation in Middlesex Hospital occuring in a woman thirty-seven years of age. The principal features may be briefly cited. The third day after delivery "a copious eruption of scattered solid papules and discrete vesicles appeared; the latter quickly developed into blebs of various sizes. . . . . The bullæ had a tendency to form groups, but were all discrete, the skin in the neighborhood being more or less covered with scattered solid papules as large as good-sized shot. The itching was intense." Here there was present a marked papular element, the disease being characterized by papules, vesicles, and blebs, and the use of the term herpes, it must be noted, is altogether inappropriate and fails to convey an idea of the clinical picture.

Cottle[2] presents an article on "herpes gestationis," in which a case is given, which illustrates more particularly the multiform variety of dermatitis herpetiformis. The patient was a woman, thirty-eight years of age, the cutaneous manifestation in the first attack, in the first pregnancy, being urticarial in form—in "bumps," to quote the author. In the second attack it was of the same character, but in the third it occurred in the form of relapsing blebs and vesicles. In the same paper mention is made of another similar case, where the lesions were hard papules which later developed into small blisters.

Gale's[3] two cases ("herpes gestationis") may also be referred to briefly. The first was that of a woman, aged thirty-nine, who had suffered on six occasions, usually four days previous to her confinement. It is stated that the disease began like "erythema papulosum," later blebs appearing, and that there was no pigmentation or grouping of the lesions. The second case occurred in a woman thirty-four years of age, the disease having appeared no less than eight times in a period of eleven years, accompanying her pregnancies.

Walter G. Smith[4] with the heading "herpes (hydroa) gestationis," gives the notes of a remarkable case, showing the multiform variety of dermatitis herpetiformis. The patient, aged thirty-five, had been married thirteen years, during which time she had experienced two miscarriages and seven full-term pregnancies. Five years before while pregnant with her third child, in about the sixth month, an eruption, similar to that for which she sought advice, appeared like "ringworm" around the umbilicus, spreading rapidly over the body and limbs. It persisted during gestation and for two months subsequently, and was accompanied by intense irritation, itching, and burning. She remained perfectly free from any cutaneous disease until three months pregnant with the seventh child, the eruption appearing around the umbilicus in exactly the same way as in the first attack, namely, as a cluster of papules or vesicles. Within the first week after parturition the eruption underwent a great aggravation. "Large vesicles and blebs formed, and when punctured clear fluid spurted out with force." When the child was three months old the affection had nearly disappeared, but subsequently a relapse occurred.

The following is an abstract of Dr. Smith's description of the disease at the date of observation. Numerous irregular clusters and groups of papulo-vesicles, and pigmentary stains of the vesicles on the arms; clusters of pimples on the thighs and knees, disseminate lesions down the legs, and blebs on the soles of the feet. Later, there were still to be found a few papules and imperfect vesicles, which looked and felt like the first stage of a variolous eruption." . . . . After each delivery that was preceded by the eruption the nails fell off the hands and feet. At present all the nails are marked with transverse furrows. The eruption came out in successive crops, and each outburst was preceded by a feeling of itching and heat.

The case brings to mind that reported by Bærensprung with the name "herpes circinatus," and depicted in his *Atlas of Skin Diseases*. Hebra regarded this case as illustrating his "impetigo herpetiformis," an observation to which I have elsewhere directed attention.

French writers, with some exceptions, do not seem to have recognized herpes gestationis. M. Barthélemy, however, in his translation of my *Treatise on Diseases of the Skin*, in a note states that "it is the same disease as that which Hebra calls impetigo herpetiformis of pregnant women." Among the recent German authors, Kaposi makes no allusion to herpes gestationis. Behrend only incidentally refers to it (quoting Bulkley) in considering the etiology of pemphigus. Nor do we find more than the briefest reference to the subject in a recent volume on skin diseases by Malcolm Morris. He says "herpes gestationis occurs in pregnant or parturient women, but is rarely seen in England." No mention whatever is made of impetigo herpetiformis (Hebra). In this country the latest author, Robinson, makes herpes gestationis a variety of herpes, placing it between the varieties "progenitalis" and "zoster," and stating that it may be regarded as belonging to the herpetic or pemphigus group of cutaneous diseases, and that he has observed two cases. A separate chapter is devoted to impetigo herpetiformis (Hebra).

Other forms of so-called herpes, such as "herpes pemphigoïde," "herpes vegetans," "herpes pyæmicus," and "herpes phlyctænodes" may here be referred to. The first of these, described by Devergie, will be considered later in connection with pemphigoid eruptions. Herpes vegetans was employed by Auspitz[1] to designate a case subsequently reported and called by Hebra impetigo herpeti-

[1] Lancet, June 1, 1878, p. 783.
[2] St. Geo. Hospital Reports, 1879.
[3] Lancet, 1880. vol. 1, p. 601.
[4] Dublin Journ. of Med Sci., March, 1881, p. 70.

[1] Archiv für Derm. u. Syph., 1869, p. 247.

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formis, the case being one of the group of Hebra's cases. Neumann, in his *Hand-book of Skin Diseases*, 3d edition, briefly alludes to the same disease, but regards the term herpes pyæmicus as more expressive of the condition.

Gibert[1] describes a case representing an unusual form of disease under the name "herpes phlyctænodes," as follows: The patient was a woman twenty-seven years of age, who was in 1814 for the first time attacked with a "phlyctenoid eruption," the origin of which she attributed to a severe fright, which she experienced on the invasion of France by the allied troops. Ever since, she has been subject to an anamolous eruption of small vesicular elevations, appearing sometimes on the trunk, sometimes on the face, sometimes on the limbs, and by a bright redness of the skin, and intense itching and smarting. Three years later she had more frequent and violent returns of the cutaneous disease; the catamenial periods became painful, and the discharge scanty. Two years afterwards she entered the hospital St. Louis. The dorsal aspect of the hands and forearms was red, swollen, hot, inflamed, and extremely painful to the touch, covered with a number of small vesicles, most of them miliary, others the size of a pin's head, others even that of a small pea. These elevations, first noticed in the form of small red points, became more sensitive as they enlarged. At first they were colorless and transparent, afterwards turbid and opaque, resting on an inflamed base, most of them distinct, some blended and grouped together, discharging a considerable quantity of fluid on bursting. Violent itching, burning heat, and severe smarting accompanied the eruption, producing restlessness, and causing intense suffering to the patient."

The case without doubt, it seems to me, was an example of the vesicular and bullous varieties of dermatitis herpetiformis, and calls to mind, in its similarity as concerns the etiology, the case of Captain K., reported by me with the title "A Case of Dermatitis Herpetiformis Caused by Nervous Shock."

I come now to the consideration of a series of cases which have been grouped by the reporters under the head of "pemphigus," usually with various adjectival qualifications, which are clearly examples not of true pemphigus, but of that multiform and protean process under discussion. That these cases were not regarded as ordinary pemphigus is manifest from the statement of the reporters that they possessed peculiar characters. The titles indicate that the writers (for the most part well-known dermatologists) were at a loss to classify them, such names as "pemphigus herpetiforme," "pemphigus pruriginosus," "pemphigus composé," "pemphigus aigu pruriginosus" and "pemphigus circinatus," showing a varied and uncertain nomenclature.

I shall cite some of these cases, before doing which, however, a brief description of the bullous variety of dermatitis herpetiformis may be presented, the account being an abstract from my original communication.

It is characterized by more or less typical blebs, tense or flaccid, rounded or flat, usually the former, filled with a clear or cloudy fluid, seated upon a non-inflammatory or inflamed base, varying in size from a pea to a walnut, and mostly irregular or angular in outline. They incline to group in clusters of two or three, the skin between them being reddish and more or less puckered. Sometimes in immediate proximity will exist one, two or three or a part of a circle of small, pin-head sized, flat, whitish pustules. Vesicles, small or large, flat or raised, are also generally found near by or disseminated over the affected surface. As in the other varieties of the disease any region may be attacked, but more especially the trunk, upper extremities, and thighs. The lesions are generally soon ruptured, crusting with yellowish, brownish or greenish crusts. They are accompanied by burning or itching, which may prove severe. They must be distinguished from the lesions of pemphigus, with which of course they may be readily confounded, but they are herpetic in character. They differ in that they incline to group, and have a more inflammatory, herpetic aspect, the type of which appearance is seen in herpes zoster. Moreover, around and near the bleb will usually be found vesicles and often pustules, the latter frequently in close proximity.

Looking into the earlier French literature we find Rayer[1] speaking of pemphigus "circinatus" as a variety of this disease; and stating, moreover, that he was the first to notice it. He gives a case, to quote his words, of "acute pemphigus, with simultaneous eruption of bullæ on the right forearm; annular erythema; herpes phlyctænodes." The patient was an unmarried woman, twenty-three years of age, with regular menstruation. The disease began with itching and the appearance of small red spots which were succeeded by small blebs closely crowded together, which gradually became large and increased in number. Here and there they ran together. As a rule, they were without areolæ. Some of them were opaque. Crusts were also present. Annular patches of erythema were also observed.

Another case, reported by Rayer, is that of "chronic pemphigus; bullæ arranged in bands; complication with herpes circinatus." I shall not give the notes of this case because of their unusual length, but it may be stated that, in my opinion, the disease was one of dermatitis herpetiformis;—the peculiar erythematous patches, herpetic groups of vesicles, blebs, the excoriations and the crusting, the itching, the severity of the attack, and lastly, the duration of the disease, all pointing to this disease rather than to any other affection.

Still another case is recorded by Rayer, as one of "chronic pemphigus, presenting isolated bullæ, and clusters of an eruption similar to that of herpes phlyctænodes; amenorrhœa; recovery." The woman was forty-two years of age. There were constitutional disturbance, severe itching, and a copious diffuse eruption of groups of variously shaped and sized blebs, which appeared in successive crops.

Chausit[2] describes at length two cases, both occurring in women, with the title "pemphigus aigu pruriginosus," which likewise are to be viewed as examples of dermatitis herpetiformis. One of these cases may

[1] A practical treatise on the special diseases of the skin. Translation from the French, London, 1845, p. 118.

[1] Treatise on Diseases of the Skin, English Translation, London, 1835, p. 219.

[2] Annales des Mal. de la Peau et de Syph., Mars, 1852.

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be quoted. A woman, aged 23, of robust constitution and good general health, was delivered of her first child six weeks before full term. At the fifth month of gestation itching and an eruption of numerous minute solid papules upon the body and limbs manifested themselves, the itching increasing in severity as pregnancy advanced. On the fifth day after delivery she experienced even greater itching and general burning, together with fever and some delirium. The following day the whole surface was covered with a confluent efflorescence of large elevated red papules, resembling in some respects those of erythema papulosum. The skin presented the same appearance for two days, and on the third there were noted on the arms a few disseminated transparent blebs varying in size from a haricot-bean to a hazel-nut. The blebs increased in number until on the eleventh day the whole surface, including the face, was invaded, the burning and itching by this date having ceased. The papules disappeared, new blebs, starting as such, coming out from day to day until the seventeenth day when they disappeared leaving brownish stains. A month after there was slight itching over the general surface together with a few groups of papules, but no more blebs formed.

The papular manifestation preceding and following the blebs would in itself be sufficient to differentiate the disease from true pemphigus, the affection with which it might be confounded.

In considering pemphigus, Devergie,[1] under the heading, "pemphigus composé," gives a case with the title, "herpès pemphigoïde," as follows: "The patient was a woman, fifty years of age, who had ceased menstruating five years before. The disease began with itching, followed by an inflammatory patch covered with large vesicles, which rapidly passed into blebs. Soon various regions were invaded, until the whole surface was well covered with eruption. Large red patches, more marked on their periphery than at the centre, surrounded by one or two rings of blebs, crusting in the centre, formed from time to time. The itching was especially marked on the periphery of the patches. The patient recovered.

As in Chausit's case quoted, the multiform erythematous patches here were marked features in the manifestation; also the subsequent evolution of the lesions, all suggesting a peculiar process. This might be compared to an exaggerated erythema multiforme, showing the several varieties of the disease, especially the bullous, rather than to pemphigus. Indeed, I may here state that dermatitis herpetiformis in some cases manifests itself with many of the clinical features of erythema multiforme. Its relation to this disease is a question in my mind already ripe for discussion.

Devergie also alludes very briefly to "pemphigus herpetiforme," which, he states, he has frequently seen invade the whole body, the patient succumbing to the disease as in other forms of pemphigus.

Hardy[2] divides pemphigus into acute and chronic; under the latter he makes three varieties; first, le pemphigus bulleux successif; second, le pemphigus foliacé; third, le pemphigus prurigineux. The last variety, which he illustrates with a case, should it seems to me be regarded as an example of the combined vesicular and bullous varieties of dermatitis herpetiformis. The patient was a woman thirty-five years of age, who had already had nine children, and was at the date of observation at the close of the last month of her tenth pregnancy. Since her second pregnancy she had suffered, coming on some weeks after conception, from an itching eruption, involving the whole general surface, characterized by blebs the size of a walnut. At the same time the skin became brown, and the seat of a viscid secretion. The symptoms were augmented up to the time of delivery, after which they subsided insensibly.

Under the title of "pemphigus," Klein[1] gives the notes of a case which some writers (Milton and Bulkley) on herpes gestationis have regarded as an example of that disease, but which, if my views be adopted, must be looked upon as another instance of the combined vesicular and bullous varieties of dermatitis herpetiformis. The case was that of a woman thirty-two years of age, the disease beginning in the seventh month of pregnancy, characterized at first by millet-seed sized vesicles, which subsequently developed into blebs as large as a hen's egg, with contents at first clear but later becoming turbid. At the same time severe pains were present, and the strength of the patient declined. The disease disappeared shortly after delivery.

I have next to observe that, under that vague term "hydroa" some cases are found in literature which, I think, might more properly be regarded as examples of dermatitis herpetiformis. Thus, Bulkley[2] gives the notes of "two cases of hydroa," which were read before the New York Dermatological Society, and which it seems should be regarded as examples of that disease. The first case was a married lady, 40 years of age, "who presented a very anomalous eruption, which was then composed largely of bullæ." Three months previously, while in Europe, the disease had been diagnosed eczema by several dermatologists, and was there treated, but with little success. The description given by Dr. Bulkley, especially as relates to the bullæ; the "moist exuding portions of surface;" the "almost unbearable itching;" the constitutional disturbance; the wide extent of the eruption; and the course of the disease, are peculiar and unusual. The case, I think, should rather be classed as an instance of dermatitis herpetiformis than as one of so-called hydroa, the existence of which latter disease, viewed as a distinct process, I am not willing to admit.

In the second case occurring in a married lady aged 26, the first outbreak consisted of erythematous patches, which burned and smarted, and passed away in a few days. Six weeks later there was an attack of

[1] Mal. de la Peau, Paris, 1857, p. 309.
[2] Leçons sur les Mal. de la Peau, 2d part, p. 136, 2d ed., Paris, 1863.

[1] Allg Med. Zeitung, Vienna, August 6, 1867; quoted in Jour. Cutan. Med., 1868, p. 203.
[2] Archives of Dermatology, April, 1877.

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to take necessary food. Recovery was gradual, discharge from the mastoid ceased in the course of the next three weeks. Hearing in that ear remained very imperfect.

CASE IV.—C. K., farmer, aged 54 years, living about four miles from town, called at my office on June 1, 1876, complaining of pain in his left ear. There was no swelling of the meatus, the tympanum was slightly congested, the fauces were inflamed, and the tonsils enlarged. I prescribed for the inflammation, warning him of the threatened disease of the middle ear, and requested him if not materially relieved, to return on the third. He did not return for a week, when he came in and said he was no better. He was again prescribed for, and warned of the danger he was courting, and asked to return at least on the second day. He did not return until June 17th, when he came again complaining that the treatment had done him no good. He was again prescribed for, and warned that if he continued to act as he had been doing, he would have weeks, if not months of suffering, with probable loss of hearing, and possible danger to life, and that he must be seen at least every other day. I did not see him again until the Fourth of July, when I was called out of bed early in the morning to see him. He stood with his head bent forward, his hand encircling his left ear, his face pale and thin, and his whole appearance expressive of the most intense agony. I directed a strong anodyne to be repeated frequently, and ordered him to return home, and promised to see him early the next day. I then learned that in the intervals between his visits to me he had been treating himself by cupping, bleeding, and large doses of quinine as well as a variety of domestic remedies. There had been slight discharge from the ear, but the meatus was now so firmly closed by swelling of its walls that pus could no longer escape. There was some swelling of the mastoid, and also on the face in front of the ear. Any further depletion was out of the question. Anodyne lotions were applied around the ear, and over all warm poultices. Morphia, chloral, and potassium bromide were given in large doses, to procure sleep, of which he had not had more than a few minutes at a time for over a week. I hoped to obtain some discharge through the meatus, but failing in that, and swelling increasing rapidly both in front and behind the ear, incision of the mastoid became imperative. Commencing on a line with the top of the ear, an incision was carried down to the point of the mastoid process, and over one and one-half inches in depth before reaching the bone; a branch of the posterior auricular artery was divided which, in consequence of the great infiltration of surrounding tissues, and its depth in the wound, I failed to ligate, and considerable blood was lost before the hemorrhage could be arrested by compression of the wound. There was no suppuration present and the periosteum remained uninjured. On the second day the compresses were removed without bleeding, and warm poultices applied for several days without relief. Swelling on the face had rapidly increased until the eye was nearly closed. Perforation of the mastoid seemed to be imperatively demanded.

On the following morning, assisted by one of my students, I removed the dressing, preparatory to operation, and found the wound filled with a clot of blood, the removal of which was followed by a strong jet from the divided artery, and five or six ounces of blood were lost before a ligature could be applied. The patient was so much enfeebled that further interference seemed unwise, and was abandoned for the time being. A few days later, after the patient had rallied a little from the loss of blood, without the use of an anæsthetic, I perforated the mastoid with a small bit similar to those used by Dr. Buck, which I had procured and used successfully for drilling the bone in a case of ununited fracture of the tibia. The drill was applied to the mastoid at the level of the floor of the meatus, and directed slightly upward, forward, and inward. At a depth of about three lines I felt that the instrument had passed the hard shell of bone, and was entering a softer and more friable structure. The bit was laid aside, and with a probe the way was readily opened into the antrum. A slight discharge of pus followed through the opening. Swelling of the face continued to increase, and I was compelled to make incisions both above and below the zygoma. Notwithstanding this, the abscess afterward opened and discharged freely within the outer angle of the eye. The abscess healed in a few weeks. All pain ceased in a few days after opening the mastoid. Syringing of the cavity of the tympanum was not resorted to in any one of these cases. A few days ago I saw this patient. and he informed me that he now hears better with that ear than he does with the right ear, which has never been diseased.

The second and third patients are living, and to be seen almost every day, although I have not lately inquired into their condition of hearing.

The first of these cases, related from memory, occurred in the fall, or late in the summer, of 1850, within three years after I commenced the practice of medicine. Aural surgery was then comparatively in its infancy, and had made but little progress toward its present advanced position. I had only read the works of Itard and Kramer on the ear, neither of whom mentions or seems to have thought of opening the mastoid cells as a means of relief from the danger of suppuration of the middle ear. Kramer, in treating of "internal inflammation of the ear," says:

> A sure guide is not unfrequently met with in the simultaneous affection of the mastoid process. . . . On being laid open, either naturally or artificially, the bone is found to be carious; by carefully giving the probe a proper direction, it may thus be introduced into the cavity of the tympanum."

Again he says:

> "Laying open the mastoid process is of much more importance. Whenever fluctuation is discovered, or even when the periosteum yields to the pressure of the finger, the *integuments* should then be divided, and, if necessary, the *periosteum also*."

Thus clearly showing that he never contemplated any artificial opening into the mastoid cells, other than the mere passage of a probe through broken-down, carious bone. Although I knew of the operations of Petit and Jasser and of the death of Baron

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von Burger, which operations had been done for the relief of deafness, I had never heard of its being done for the relief of suppuration of the middle ear. Guided by the teaching of Kramer, I expected to find an easy passage to the middle ear through carious bone, but, defeated in that, I was illy prepared to encounter so formidable a case. Left to my own resources, I had to act in the emergency without precedent or authority, and without time for consultation or study. Had my case been less hopeless, I would probably have hesitated long before resorting to so hazardous an expedient. Although the anatomical relations of the mastoid region were still fresh in my memory, I had a wholesome fear of injuring the lateral sinus, and selected a point somewhat lower than is now considered best for reaching the antrum.

When I encountered my second case I had read the works of Wilde and Toynbee, was acquainted with the operations of Von Troeltsch, and had no hesitation as to the propriety or necessity of the operation. The only question was, what instrument can be used, as I had none for that purpose. Accustomed to work occasionally in the shop of a gunsmith on the opposite side of the street from my office, who often made and repaired surgical apparatus for me, I remembered a drill which I had frequently used, and which seemed to furnish just the instrument required. One of the bits was selected and fixed in an ordinary handle; it answered the purpose admirably, and I have never used a better instrument.

In the third case a small gouge was borrowed from a cabinetmaker, and used as successfully as the others. The drill would, perhaps, have been better adapted to this case, as the gouge would have been to the former.

The drill and bits of A. H. Buck, now generally recommended, are convenient and well adapted to opening the mastoid cells; but I can conceive of no instrument that equals in any respect the burrs of the surgical engine.

A CASE OF EXCISION OF EPITHELIAL CANCER OF THE RECTUM.

By M. F. MERCHANT, M.D.,
of Genoa, N. Y.

G. A. W., æt. 67, farmer. Health generally good until beginning of present difficulty, which first attracted his attention about January, 1884, consisting of soreness and irritability of rectum, followed in a few weeks by a sero-purulent discharge, often containing considerable blood. Pain increased, becoming more severe at night, and extending down the limbs.

Examination proved the rectum to be the seat of an extensive, hard, and nodular deposit, containing both mucous and tegumentary structure, and extending three and one-half inches up the gut and firmly embedded in its coats. The upper part of the cancerous growth nearly encircled the bowel, while below the deposit was more lateral and posterior. At the margin of the anus, the walls of the rectum had sloughed through posteriorly, destroying the external sphincter muscle.

As the growth could be entirely reached by the index finger, and there appeared to be no undermining of the constitution, with no perceptible enlargement of the glands of the system, the removal of tumor was advised, and, after full consideration, he consented to the operation.

On the 1st of February, 1885, the bowels having been previously emptied, the patient was brought well under the influence of ether, and placed in the lithotomy position.

Assisted by Drs. Frederick Hyde and M. B. Van Buskirk, the operation was performed by carrying an incision entirely around the anus, keeping well outside of all diseased tissue, to the superficial fascia. The gut and tumor were separated from the surrounding healthy structures as much as possible with the finger and handle of the scalpel, using the knife where necessary to separate too firm adhesions. After the removal of all diseased tissues, the gut was drawn down and divided with the knife, removing three and a half inches of the bowel. The divided end was attached to the integument by silk sutures, except posteriorly, where too much tissue had been removed.

The flow of blood was not great. A simple water dressing was applied, held in place by a T bandage, one-fourth grain of morphine given, and patient placed in bed.

Bowels were kept confined for six days, and after second day wound was dressed with carbolized oil and lint.

Slight tympanites occurred on the second day, but soon subsided. Surgical fever was mild, with healthy discharge.

In four weeks patient began to sit up, and in three months was able to be about and perform light work. He experiences no difficulty in retaining feces, except when bowels are lax, and up to time of present writing has continued to improve, and there is no indication of a return of the disease.

MEDICAL PROGRESS.

Laparotomy for Echinococcus of the Spleen.—Dr. Antonio Fibbi, on September 2d, performed the operation of laparotomy for the removal of an enormous suppurating echinococcus cyst of the spleen. The seventh day after operation the patient was in a favorable condition, and recovery seemed probable. At no time after the removal of the tumor did the temperature rise above the normal.—*Gazzetta Medica de Torino*, September 15, 1885.

Purulent Endometritis during Pregnancy.—Dr. Douat records a case of purulent endometritis occurring during pregnancy. This disease subsequent to confinement is an ordinary occurrence, but until the present time no case has been published of its existence during pregnancy. The present observation is therefore unique.

A woman aged twenty-seven years, in whom menstruation had occurred since the age of fourteen, and

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whose history showed no syphilitic infection or other constitutional disease, entered the clinic at Leipsic, where pregnancy at term was diagnosticated. Labor was rapid and easy.

The amniotic fluid was of a dark green and yellow color, and contained numerous pus corpuscles.

Examination of the placenta and its membranes showed the presence of adhesions and an unnatural condition of the amnion and chorion, between which pus was found. Upon the borders of the placenta the true decidua was infiltrated with traces of thickened pus, and the decidua reflexa was likewise infiltrated with pus. There was no trace of the gonococcus, and it was evident that the purulent process had begun both in the uterine and ovular decidua.

The purulent cells were found scattered between the membranes and had given rise to small abscesses.

As to the cause of the condition, it may in part be attributed to blenorrhagic infection and partly to attempt to produce abortion.

The patient for a long time had been affected with leucorrhœa and presented other physical signs of endometritis.

The chief interest in the case is however, the fact, that purulent endometritis could exist during pregnancy without interrupting its course.—*Archiv für Gynäkologie*, xxix. 3, 1883.

THE BREASTS OF MALE CONSUMPTIVES.—According to M. LEUDET, there sometimes exists a congestive swelling of the breast of male consumptives that is related to the pulmonary disease. There is no deposit of tubercle. The author has observed three cases of this mammary enlargement. The breast is first swollen throughout, and has the characters of a disk whose diameter is about three to five centimetres. The skin that covers the gland does not exhibit any change in color, and the subjacent connective tissue is unaffected. After one gland has enlarged the opposite organ may be affected. Pain is experienced in the diseased gland, and may radiate round the thoracic wall. This swelling is especially liable to occur on the side the lung of which is most diseased, or when pleuritic attacks are notably present. The swelling is regarded as due to a congestion, the result of irradiation from the central disease. The lymphatic glands are not swollen. After lasting from one to several months, the swollen mamma returns slowly to its normal size; suppuration has not been known to occur.—*The Lancet*, Sept. 19, 1885.

THE CAUSES OF RAPID DEATH FROM INTERNAL COMBUSTION.—DR. ALBERTO SEVERI, in an elaborate paper upon internal combustion, and from what reasons it may become rapidly fatal, arrives at the following conclusions.

The factors by which death is produced are:

1. Depression of the vascular tonicity. In the condition under consideration, there is primarily an exaggerated excitation of the bulbar centres of the brain, and hence consecutive depression and paralysis of the same centres.

2. Superheating of the blood. Although the temperature may not be sufficiently high to destroy the corpuscles, as is the opinion of Lesser, this result, according to Trojanoff, is obtained by a temperature of 125⅗° F., which serves also, in part, to produce paralysis of the circulatory centre.

3. The separation and introduction into the circulation of flocculi and small clots, which are found in the heated zone, by the action of the heart and by changes in the vessel walls. Such clots, in the right heart and pulmonary vessels may become nuclei of extensive coagula, and on the other hand they may directly form emboli in the ramifications of the pulmonary vessels. The phenomena which are present during the life of the animal in the first twenty-four hours, and the necroscopic appearances are perfectly in accord with its interpretation.—*Lo Sperimentale*, August, 1885.

THE PATHOGENY OF CERTAIN PARALYTIC SEIZURES OBSERVED IN THE AGED; THEIR PROBABLE RELATION WITH URÆMIA.—DR. RAYMOND, in a series of studies made in the laboratory of M. Velpeau, on the pathogeny of some forms of paralysis observed in old men, and their probable relation with uræmia, holds that in old men

1. Differential diagnosis should be made between cerebral softening or hemorrhage, and certain apoplectic and paralytic phenomena, seemingly connected indirectly with uræmia, or at least appearing to be caused by it under the influence of cerebral œdema.

2. This differential diagnosis is generally very difficult; however, the resistance of premonitory symptoms —such as vertigo, gastric derangement, the demonstration of pulmonary and local œdema, and the presence of albumen in the urine—should lead to the suspicion of uræmia.

3. These paralytic attacks are sometimes due to an old lesion, but frequently they occur without apparent cause.

4. The œdematous condition of the cerebral tissue and ventricular dropsy are the factors which unite to produce paralysis of this nature, either by exciting an old lesion, or by producing differences in the condition of the cerebral hemispheres, not however recognizable by post-mortem examination.

Dr. Raymond further concludes from observed clinical facts and his experiments in proof of the preceding, that

1. In the aged mortal, apoplectic attacks, or at least attacks which are followed by mild hemiplegia, and which simulate the character of hemiplegia, result from cerebral softening, or hemorrhage may occur.

2. Such attacks are due to a condition of uræmia.

3. Autopsy shows, sometimes the existence of an old lesion, and at others simply a generalized œdema of the brain.

4. The pathogeny of these attacks seems in every case to be related with cerebral œdema, and to disorders of circulation resulting from it. These disorders, whether they be congestive or anæmic in their nature, lead to want of oxygen in the cerebral blood supply.

5. It is therefore important as concerning diagnosis, prognosis, and treatment, to give due significance to such clinical and pathological facts, in order to avoid serious errors in appreciating the symptomatology.

6. Cases of sudden death in the aged may be explained by the condition under consideration, a fact of importance in legal medecine.

7. Coincidence in the same patient, of old hemiplegia

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and chronic nephritis with uræmic tendency, may be the point of departure for convulsive seizures, limited chiefly to the paralyzed side. Disregard of the cases previously studied will lead to clinical errors.

8. Many authors have recorded cases of hemiplegia, absolutely inexplicable by appearances recognized at autopsy. Is it not probable that such belong to the class to which attention is here called?—*Revue de Médecine*, September, 1885.

Physiological Action of Theine.—Dr. Thomas J. Mays, as a result of his experiments upon frogs, concerning the physiological action of theine, concludes:

1. That the anterior part of the body is influenced before the posterior.

2. That it paralyzes sensation before motion.

3. That it impairs sensibility from the centre, and not from the periphery. This is also true of motility.

4. That it produces convulsions which are spinal.

5. That before or during the spasmodic stage there is marked hyperæsthesia.

6. That the general muscular rigidity produced by caffeine when introduced subcutaneously is not present in theine poisoning.

7. That its local action does not produce the characteristic muscular stiffness of caffeine.

8. That it has a more powerful action on the sensory nerve-centres, and less on the motor nerve-centres, than caffeine.—*Therapeutic Gazette*, September 15, 1885.

Physiological Action of Guaranine.—Dr. Thomas J. Mays, from experiments on the frog, to determine the physiological action of guaranine, concludes:

1. That it affects both sensory and motor nerves, the former before the latter.

2. That it paralyzes sensation and motion from the spinal centres, and not, like brucine and cocaine, from the periphery.

3. That it produces hyperæsthesia of the whole body, and after which convulsions.

4. That its convulsions are spinal and not cerebral.

5. That it first increases and then decreases respiration.

6. That it differs in its action from caffeine in that it has a stronger affinity for sensory and less for motor nerves than the latter agent, and that it is more analogous to theine in its physiological action.

7. That it first increases then decreases respiration, and arrests the heart in systole.—*Therapeutic Gazette*, September 15, 1885.

Foreign Bodies in the Conjunctiva.—De Wecker recommends the appended formula for relief of photophobia and orbicular spasm, antecedent to the removal of foreign bodies from the conjunctiva.

℞.—Aquæ dest. . . . . ʒiss.
Cocaine, hydrochlor. . . . gr. iv.
Hydrargyr. chlor. corros. . . gr. $\frac{1}{60}$.—M.
S.—Two drops into the eye.

The preparation is preferable to that containing atropia, on account of absence of mydriatic effect upon the pupil.—*Revue de Thérapeutique*, September 1, 1885.

A New Test to Discover the Presence of Blood in the Urine.—Dr. Antonio Luchini proposes the following test for the presence of blood in the urine, which possesses the advantage of preserving the natural color of the blood:

Ten c. c. of urine, acidulated with a drop of acetic acid, are agitated while cold with three c. c. of chloroform; when allowed to stand, the chloroform will rise to the top, and will be colored more or less intensely, according to the quantity of blood originally present in the urine.

Dr. Luchini has proved the efficiency of the test with ten c. c. of a mixture containing only three drops of blood in 250 c. c. of distilled water.—*Gazzetta degli Ospitali*, September 9, 1885.

The Regeneration of Osseous Tissue.—Dr. A. Bonome (*Arch. Sci. Med.*, vol. ix. 2) gives the following résumé of his experiments upon the transplantation of osseous tissue.

1. The periosteum early manifests, even within thirty-six hours, energetic regenerative processes, by proliferation of the cells of the osteogenetic layer, even when transplanted between muscles or tissues of different nature, such as the anterior chamber of the eye and the iris; it is not developed in nutrient gelatine.

2. The osseous substance, properly so called, isolated from the medulla and periosteum, produces the formation of osteoid trabeculæ through the medium of osteoblasts of the superficial layer, precisely as occurs in bone deprived of the periosteum.

3. Transplantation of the medulla gives negative results.—*Lo Sperimentale*, August, 1885.

Experimental Researches in Tuberculosis.—E. De Renzi, in the *Rev. Clin. e. Ter.*, No. 7, 1885, with a view to decide certain disputed points concerning the nature of tuberculosis, initiated a series of investigations:

1. Concerning the presence of tubercular virus in the blood.

To determine this point, five experiments were performed, by injecting two or three drops of the blood of phthisical patients into the subcutaneous cellular tissue, and the following conclusions reached:

a. In the blood of a patient ill with primary tubercular meningitis, the tubercular virus was present without doubt.

b. The blood of a scrofulous young girl probably contained the same virus.

c. In the blood of phthisical patients, collected with great care, the virus existed, but in less quantity than was found in the sputa.

d. The blood of the same patient did not always reproduce tuberculosis in animals, and this may be explained by the small number of bacteria present, and the different degrees of resistance in animals.

2. To determine the infectious power of the feces of scrofulous and phthisical patients.

To elucidate this point, three experiments were performed, two by injecting some grammes of diarrhœic feces, and in the third case, of tubercular sputa, into the rectum. The results of these experiments seem to show that the disease is inoculated with difficulty in the lower

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intestinal tract, and when produced is very slow in its development.

It is probable indeed that the feces are free from tubercular virus, and further experiment is necessary to decide the question.

3. The influence of suckling upon the production of tuberculosis.

After six experiments to determine this point, the author concludes that mothers do not directly communicate this virus to children through the medium of the milk.

4. The influence of pneumothorax upon the course of phthisis in cavities.

Referring to his observation made upon a phthisical patient in whom he was able to confirm sensible improvement after the development of the pneumothorax, and describing similar cases reported by others, and having examined the question experimentally, the author concludes

a. That pneumothorax in cavities is easily cured and produces only transitory dyspnœa immediately after the operation.

b. That in cavities in which an attempt to establish pneumothorax was made, the progress of the phthisis was not sensibly modified, nor on section was any difference found between the lungs, notwithstanding the operation was extensively practised.—*Rivista Internationale de Medicina e Chirurgia*, July–August, 1885.

TWO CASES OF HERPES WITH MOTOR PARALYSIS.—DR. G. WALLER communicates to *The Weekblad* of Amsterdam, notes of two cases of herpes, in which motor nerves were affected. A widow-woman, aged 68, had a painful patch of herpes, covering the whole of the right side of the face, stopping abruptly at the middle line. After some weeks the herpetic spots and the pain disappeared, being, however, replaced by paralysis of the same side of the face, with loss of taste on the right half of the tongue. The other case was that of an old man, who had a herpetic eruption situated on the anterior aspect of the upper arm on the right side; this was accompanied with severe itching and a pricking sensation. Eight days after the appearance of the eruption, he found himself unable to raise or extend the arm. There was no pain or swelling in the muscles or joints, and the electric reactions were normal. The herpes and the paralysis both indicated the circumflex and musculo-cutaneous as being the nerves affected. The treatment was electrical, and brought the case to a successful termination.—*British Medical Journal*, September 19, 1885.

PILOCARPINE IN DATURA-POISONING.—DR. LADISLAS ROTH, of Nagy Bajour, Hungary, was called, at 1 P. M., to a little girl, aged 4, in a druggist's shop. She was quite insensible, with widely dilated and insensitive pupils, the face and body being swollen as if dropsical, and covered with a scarlatiniform rash. She was very restless, throwing herself about in all ways, groaning and gnashing her teeth; the pulse was 146, small and weak; the respirations 40, superficial, the temperature 39.5° Cent. (103.1° Fahr.). No urine or stool had been passed since the commencement of the symptoms. The mother said that other children had told her that the child had eaten two handfuls of sweet ripe stramonium-fruit, and, when she saw her at 11 o'clock, she had seemed ill, and unable to stand on her feet. She had called the Government medical officer, who preseribed a mixture containing two grains and a quarter of tartar emetic. The druggist, however, being of opinion that that would not do any good, took upon himself to give a solution of sulphate of copper instead. In the vomit which the copper had produced a number of berries of datura-stramonium were seen. Dr. Roth, remembering a case of atropine-poisoning he had seen reported by Professor Purjek, which had been cured by pilocarpine given subcutaneously, administered, at 12 o'clock, half a centigramme ($\frac{1}{14}$th grain) of pilocarpine, in five centigrammes of water, by means of a Pravaz's syringe. No salivation or sweating followed, and no improvement was detected; and, at a quarter to three, a centigramme was given. The red rash and the swelling diminished. At three, another centigramme was given. The child cried, and shortly began to show various signs of improvement. The injections were continued. Up to 5 o'clock, $\frac{11}{14}$ of a grain had been given. At six, the pupils had become almost normal, and the pulse 120, and temperature 103.6° F. She was able to speak quite plainly, and wanted something to eat. All this time, there had been no sweating. At 7 o'clock, as her condition appeared somewhat less satisfactory, half a centigramme more was given, and this brought on both salivation and sweating. She made a rapid recovery. Altogether, six-sevenths of a grain of hydrochlorate of pilocarpine were administered, five of which, the writer considers, were required to neutralize the datura.—*British Medical Journal*, September 19, 1885.

ACTION OF NITRO-GLYCERINE ON NEPHRITIS.—R. B. BURZHINSKI, in *Vrach*, gives the result of his experience with nitro-glycerine in the treatment of nephritis as follows:

1. Nitro-glycerine in small doses diminishes the quantity of urinary albumen passed per diem, and still more markedly the percentage of albumen in the urine.

2. The diurnal quantity of urine is perceptibly increased by nitro-glycerine, this increase persisting some time after the nitro-glycerine has ceased to be given.

3. Gradually increasing doses of nitro-glycerine influence still more decidedly the formation of albumen.

4. I have been unable to determine the influence of nitro-glycerine on the weight of the urine, the weight of the patients, and on the dropsy.

5. With the exception of slight and transient headaches, nitro-glycerine does not give rise to any disagreeable symptoms. — *The Practitioner*, September, 1885.

CÆSAREAN SECTION WITH SUTURE OF THE UTERUS WITHOUT MUSCULAR RESECTION. — VON LEOPOLD, at the conclusion of a report of two additional cases of Cæsarean section with suture of the uterus and without muscular resection, lays down the following rules for operation:

1. Preparations for the operation should be as restricted as possible, but the external and internal genitals should be carefully washed with solution of corrosive

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sublimate, 1 : 2000, or with three per cent. carbolic solution.

2. Operate as early as possible at the end of the first stage of labor.

3. Obtain a reliable assistant, who, previous to the operation, must inform himself concerning the operation in all its details.

4. The uterine incision must at first extend only to the movable peritoneum, but will finally be extended to the fundus.

5. After the delivery of the child and before the removal of the placenta, slip the uterus from the abdominal cavity, and,

6. Induce cessation of hemorrhage by compression of the neck of the uterus by an elastic ligature, regulated by the hand.

7. Undermining and resection should only be performed if the serous edges of themselves do not coaptate on account of muscular contraction, and the surfaces of the wound protrude. Preparation for this operation is necessary; and undermining may first be performed, and followed by resection. Both, probably, are always preferably to be avoided.

8. The uterine incision should first be closed with deep silver sutures, avoiding the decidua. The internal margins of the muscular borders will be best coaptated if, previous to the drawing taut of the sutures, the uterus is compressed laterally, as thereby the outer edges gape but the inner come into apposition. The sutures should now be tightened, and the uterine wound is thus closed under the eye of the operator, from within outward. Too firmly drawing the sutures together must be avoided. Superficial sutures of fine silk give the best results. The serosæ are thereby folded, as usually occurs spontaneously; the superficial suture of each serous border in the middle portion of the wound is always best when double, while at the ends a single transfixion is sufficient.

9. After suture of the uterus, the elastic ligature is removed, and the remaining steps of the operation are concluded according to the methods of laparotomy.—*Archiv für Gynakologie*, Bd. xxvi. Hft. 3.

The Modification of the Biliary Secretion in Febrile Processes.—Dr. G. Pisenti (*Arch. per le Sci. Mediche*, vol. ix: p. 2), in an experimental study to determine the effects of febrile conditions in modifying the biliary secretion, subjected dogs to intravenous injection of septic material and to confinement in an elevated temperature. By the first procedure, *septic fever* was produced and as a result of confinement in high temperature, *a fever from retention of heat.*

In both sets of experiments a rise of temperature was noticed, ranging from 2° to 4° C. The results of his experiments are thus recorded:

1. The biliary secretion always diminishes during the existence of fever, whether resulting from septic condition or from retention of heat, and the diminution noted varies from one-half to one-third of the amount secreted under normal conditions.

2. The quantitative variation of the fluid portion of the bile is demonstrated in both forms of fever, and is in relation with the duration and height of the fever, while changes in the elimination of the solid materials vary according to the nature of the febrile process.

In septic fever, the quantity of the solid materials is diminished in proportion to the decreased velocity of the blood in the portal system. On the contrary, in fever due to the retention of heat, the quantity of solid materials eliminated increases with the rise in temperature in relation with the altered conditions in the portal circulation.

3. In fever, the bile which escapes from fistulæ contains more mucus than normal; in septic fever the quantity is greater than in that due to the retention of heat.

4. In fevers generally the coloring matters of the bile undergo changes and modifications in their chemical constitution, by which the bile becomes black and afterward of a dark green color.

5. The normal condition of the biliary secretion is reëstablished very slowly after septic fever, but with greater rapidity after fever from the retention of heat.

6. The alterations in the biliary secretion during the existence of fever are not due to organic lesions,—as the author has found by microscopic examination of the liver of animals experimented upon,—but are found to be entirely functional.—*Lo Sperimentale*, August, 1885.

The Bruit de Galop.—M. Potain, at the recent meeting of the Congress for the Advancement of Science, advanced a new theory of the bruit de galop, according to which the bruit results from the sudden tension of the ventricular wall subsequent to the entrance of blood into the cardiac ventricles.

In support of his views the annexed facts are brought forward:

1. The bruit is always diastolic.

2. It results from the entrance of the blood, with which it always coincides, and which is always the only active movement produced at this moment.

3. It is not necessarily connected with the auricular systole, and may be produced without relation to it.

4. It appears to occur at the moment when the ventricular wall enters into diastolic tension, and, moreover, it is more accentuated when that wall is more rigid or inextensible, a condition which necessarily increases its intensity.—*Journal de Médecine de Paris*, September 20, 1885.

Hypodermic Injections in Anthrax.—Olavide (*L'Union Médicale*, September 26, 1885) recommends as a hypodermic injection in anthrax:

℞.—Acidi carbolici . . . . fʒj¼.
Alcoholis . . . . fʒijss.
Aquæ dest. . . . . fʒiv.—M.

At the beginning of the disease injection at the base of the tumor should be made with the solution. Pain is diminished, the swelling diminishes, and the fever is diminished and disappears entirely the third day.

By continuing the injections and covering the diseased surface with lint soaked in the same solution, there occurs, according to Olavide, resolution of the anthrax about the eighth day.

Astragaloid Osteotomy in the Treatment of Flatfoot.—Professor William Stokes, in discussing the treatment of flatfoot by astragaloid osteotomy, makes in conclusion the following observations:

1. That the theory of ligamentous relaxation being

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the chief factor in the production of flatfoot is erroneous, being in the majority of cases the result and not the cause of that deformity.

2. That elongation of the calcaneo-scaphoid ligament should not be mistaken, as it so often is, for relaxation of it.

3. That the altered direction of the sustentaculum tali is a change that could not be directly or indirectly connected with either ligamentous relaxation or muscular paralysis.

4. That the osseous deformation, whether resulting from original malformation, or rickets, or other pathological change in genu valgum—a condition until quite recently believed to depend solely on ligamentous relaxation—furnishes an *à priori* argument in favor of the author's theory.

5. That the treatment of pes planus in cases, at all events, where the deformity is irreducible should be directed mainly to restoring the arch of the foot by operative interference with the misshapen astragalus.

6. That this is feasible without destruction of the medio-tarsal joint.

7. That the evidence in favor of muscular paralysis being an etiological movement in the production of flatfoot is insufficient and unsatisfactory.

8. That deformity of the scaphoid, the result of disease, may also be looked upon as a cause of flatfoot.

9. That the appearances in the specimens noted by Mr. Symington and the author furnish strong proof of the truth of the connection between flatfoot and original osseous malformation.

10. That, after astragaloid osteotomy, it is desirable to keep the foot, during the healing of the wound, in a state of supination, which can be conveniently effected by the application of a Dupuytren's splint, as used in fractured fibula.—*Annals of Surgery*, October, 1885.

THE RESULTS OF COMBINED SPLENECTOMY AND THYROIDECTOMY IN DOGS AND RABBITS.—G. B. UGHETTI and E. DI MATTEI (*Arch. Soc. Med. Bizzozero*, vol. ix. p. 2) find, from experimental removal of both spleen and thyroid body in dogs and rabbits, that

1. Total thyroidectomy causes the death of animals in from 4 to 15 days after the operation, with the same phenomena already observed by others.

2. Splenothyroidectomy done at a single operation produces death in dogs in from 4 to 16 days after the operation, with occurrence of the same symptoms observed after total thyroidectomy alone.

3. By thyroidectomy and consecutive splenectomy, at different times and with an interval of from 5 to 9 days, the dogs succumb as before but suffer much more if chloroformed for the consecutive splenectomy.

4. Dogs in normal condition are not affected by transfusion of blood from dogs upon which thyroidectomy has been practised, whether made through the peritoneum, the veins, or directly from the carotid artery into the jugular vein.

5. Dogs from which the thyroid has been removed when subjected to transfusion, even though from dogs upon which thyroidectomy has been performed, live longer than when transfusion is not practised.

6. Of five dogs in which a single lobe of the thyroid was removed, one died after 4 days, a second after 6 days, and no effect whatever was observed in the remainder.

7. Isolation of the two lobes of the thyroid body, is followed by neither local nor general disturbance.

8. Total thyroidectomy in the rabbit is not followed by any disturbance or death.

9. Rabbits survive splenothyroidectomy done at a single operation.

One female thus operated upon became pregnant and brought forth at term healthy offspring with both organs present.—*Lo Sperimentale*, August, 1885.

SPONTANEOUS RUPTURE OF THE STOMACH.—DR. J. CLARKE reports two cases of spontaneous rupture of the stomach, an occurrence so rare as to render it extremely interesting, especially from a medico-legal standpoint. The two cases recorded were instances of rupture of the stomach, and not a mere perforation of the walls of that viscus. The coats of the stomach in one case were atrophied and thin, but in the other were healthy; and in neither case were the coats of the organ, softened or eaten away in irregular patches by the action of the gastric juice. In both cases the stomach was empty at the time of rupture; and in both the gastric juice acted only on the spleen, digesting off its capsule and peritoneal coat, in patches, and thus allowing the escape of blood into the abdominal cavity. Dr. Clarke thinks there can be no doubt that the rupture in both took place before death, and was not due to post mortem softening; the seat of rupture was on the anterior wall. The mucous membrane and peritoneal covering could be traced up to the margin of the rent, and did not present any marked degree of irregularity; and there was an absence of softening, erosion, or rupture on the posterior wall of the stomach.—*The Indian Medical Gazette*, August, 1885.

THE VACCINE FLUID OF M. FERRÁN.—At a recent meeting of the Académie de Médecine de Paris, M. CHANTEMESSE, in his own and M. ROMMO'S name, made a report upon the vaccine fluid employed by M. Ferrán. Two samples were examined, the first brought from Spain by M. Rommo; the second sent directly by M. Ferrán. The results of their experiments and investigations are embodied in the appended résumé:

1. The vaccine of M. Ferrán is not a fluid the culture of which is invariable; sometimes it is an impure culture of comma-bacilli; at others it is a liquid containing masses of microörganisms, while the comma-bacillus is almost absent.

2. In various cases the subcutaneous absorption of the so-called vaccine did not protect from the stomachic injection of a pure culture of the comma-bacillus, according to the known methods. Its vaccine power in their experiments is shown to be *nil*.

3. Injected beneath the skin of India-pigs, even in the dose of several cubic centimetres, the vaccine caused no appearance of choleraic phenomena. According to its composition and the dose injected it sometimes produced inflammation, and sometimes was without result. Cultivated separately the different microörganisms therein are discovered to possess different morphological features and pathological properties. In considerable dose some of them occasion death.—*Journal de Médecine de Paris*, September 20, 1885.

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RARE NERVOUS SYMPTOMS IN DIPHTHERIA.

ABSENCE of the patellar tendon-reflex after diphtheria has been recorded by several writers, but the observations of BERNHARDT, which appear in a recent number of Virchow's *Archiv*, would seem to indicate that it is not a frequent sequence of this disease. Of twenty-one cases examined during convalescence it was absent in thirteen on both sides, and in one case on one side only. The abolition of the reflex comes on from three to six weeks after the commencement of the attack and is not reëstablished for five or six months. It usually occurs without any indications of affection of the nervous system, but the symptoms of post-diphtheritic ataxia may be present, though even when this exists the patellar reflex is not necessarily absent.

UHTHOFF reports a case, in a boy of ten years, who began to have disturbance of vision fifteen days after an attack of diphtheria. There was complete paralysis of accommodation with retention of the pupillary reflex. Four or five weeks later complete external ophthalmoplegia with ptosis made its appearance, and paresis of the legs with ataxia and abolition of the patellar reflex followed the ocular symptoms. At the end of sixteen weeks the boy began to improve, and complete recovery took place in about four months later.

MENDEL has published an analogous case with a careful microscopic examination of the nerve centres. A boy, aged eight years, had, in the early days of convalescence from diphtheria, paralysis of the palate. Six weeks later, almost all the eye muscles on both sides were involved, without any impairment of accommodation or diminution in the field of vision. There was paralysis of the muscles of the neck, and of the right facial nerve, incoördination of the muscles of the extremities, and absence of the patellar reflex. The sensibility was normal, with the exception of slight hyperæsthesia of the legs. Death took place from paralysis of the respiratory muscles. The autopsy showed arterial and capillary congestion with minute hemorrhages along the roots of the nerves in the entire region from the corpora quadrigemina to the decussation of the pyramids. The nuclei of origin of the nerves were normal. The nerve cords, particularly the oculo-motor, showed interstitial and parenchymatous neuritis in an advanced grade. The changes in this case point conclusively to a peripheral affection of the nerves, and are in accordance with the well-known views of Charcot and Leyden.

The neuritis may be excited in some instances by the local action of the diphtheritic virus. In the case of the velum palati, so often attacked, the branches of the nerves are directly involved; and Mendel refers to an interesting observation of Küssmaul, in which a diphtheria of the umbilical cord in an infant was followed by paralysis beginning in the abdominal muscles.

Mendel has also seen three cases of post-diphtheritic hemiplegia due, he thinks, to vascular lesions; in all, the paralysis was entirely motor, it involved the face and extremities on the same side, and developed suddenly, without warning, and without loss of consciousness. In one of the cases which terminated fatally, a spot of hemorrhage was found in the region of the lenticular nucleus.

REMOVAL OF THE OVARIES ON ACCOUNT OF UTERINE TUMORS.

THE operation which is generally known as Battey's, consists in the removal of the healthy or only slightly diseased ovaries, to produce a premature menopause. Various indications have been given for this operation, and the number of cases in which it has been performed increases almost daily. By this constantly enlarging experience the value of the operation will be determined, and the cases to which it is legitimately applicable will be decided.

Apart from any danger in the operation, it must always be regarded as a very grave act to remove a woman's ovaries while she is still in the reproductive period of life. Notwithstanding the statements of some writers as to the persistence of sexual desire and pleasure in women whose ovaries have been taken away, this is not the chief point; if woman were created simply as the minister of lust, to receive and give sexual pleasure, there would be great strength in the argument. But she was made to be a mother, to bear a most important part in the continuance and in the increase of the race, and if her ovaries are removed, this chief end of her existence is at once

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and forever gone. Just as the late Dr. Gross stated as to making an artificial vagina when the uterus is absent—an operation which he unqualifiedly condemned—you do not by the operation fit a woman to be a wife, but to be a prostitute. So in ablation of the ovaries a woman is denied a wife's true crown, maternity, and may be degraded to a prostitute's condition. We must think that the argument as to the continuance of her sexual gratification, used by some of the advocates of the operation, is an appeal to the lower elements of human nature, and may be cast aside. Questions relating to this gratification are rarely proper or necessary topics for professional conversation, and we imagine many women would shrink from answering them, if not actually resenting their presentation.

Still further, we believe that an unmarried girl who has had her ovaries removed has no right to enter marriage—her necessary sterility debars her from it, and this she ought to be told before her consent to the operation is given.

But that the ovaries may and ought to be removed for certain diseases cannot be doubted. The interests of the individual become paramount, and those of the race are given no weight; her life must be saved, even at the sacrifice of all possibility of her having offspring. Now it is in the discrimination as to these cases that not only scientific knowledge and professional experience, but also ethical considerations enter: the removal of the normal ovaries is always a question in morals, as well as in medicine, and cannot be evaded in either relation without evil results.

One of the applications of Battey's operation has been considered at some length by Dr. Notta in a recent number of *L'Union Médicale*. It concerns hemorrhagic fibro-myomata of the uterus. Notta goes so far as to suggest that it is probable these growths give the sole indication for the operation. His views are in direct opposition to those expressed by Dr. E. Schwartz, in the recently issued thirty-seventh volume of the *Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques*. The latter states:

"Notwithstanding some successes from this intervention, we think it should not be resorted to unless ablation of the uterus is absolutely impracticable and medical treatment insufficient, for when one makes a patient run the risk of laparotomy, it is necessary at least to give her decided chances of cure; now hysterectomy appears in this connection the sole rational operation, and if in some cases Hegar's operation has acted favorably, more frequently still it has not attained its end."

Of course removal of the ovaries, or of the uterus, ought not to be done until medical means have been ineffectually tried, but certainly the latter operation carries greater risk to life than does the former, whether called by the name of Battey, or of Hegar, and therefore should be rejected if anything like as good results can be secured by the other.

Notta gives the following conditions as indicating removal of the ovaries: The uterine tumor of mean, especially of small size, and directly inaccessible; causing incoercible metrorrhagia, which places the patient's life in danger, she being still young, and medical means for the cure of the hemorrhage having failed.

He quotes from a recent thesis of Tissier which includes 171 cases of castration in women suffering from uterine fibro-myomata, to the effect that there were 25 deaths, or a mortality of 14.16 per cent. In 135 of the remaining 146 the desired end was attained; that is, the uterine hemorrhage ceased, and the menopause occurred.

These statistics probably present the operation in its most favorable light, but even those of Wiedow do not justify resort to it unless other methods of treatment have failed. It sometimes happens that a tumor which has caused grave hemorrhages, becomes pedunculated in the uterine cavity, and its removal through the vagina can be done with little risk, and the integrity of the woman's sexual organs is kept. Patient waiting, palliation, and temporizing are required; the result is more slowly attained, a brilliant successful laparotomy is not proclaimed in societies and journals, but the ultimate condition of the patient is every way preferable, for she has undergone no mutilation, and the possibility of maternity remains to her. On the other hand, the tumor may become pedunculated in the peritoneal cavity, the hemorrhage ceasing with this change in position of the growth.

We are persuaded that in some cases of uterine fibroids causing metrorrhagia, a masterly inactivity, so far as surgical means are concerned, or simply an armed expectation, is the wiser plan. If one knows how to arm himself with patience, and to inspire the sufferer with confidence, he may find that the great majority of his cases of uterine fibroids will get on well without surgical treatment. Thorburn regarded 10 per cent. as a most liberal estimate of those cases that require the aid of the operating surgeon.

DURANDE'S REMEDY FOR GALL-STONES.

It is very generally acknowledged that the idea of dissolving calculi within the gall-bladder by the administration of medicine, is a therapeutic delusion; yet it is deeply implanted in the professional mind, and there are probably few practitioners who have not used lithontriptics of one kind or another. Of such remedies the mixture of sulphuric ether (three parts) and turpentine (two parts) as recommended by Durande, in 1774, has long been a favorite one.

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Certainly it has stood the test of time, and held its ground while systems of therapeutics have had their day and ceased to be, and has made the name of the learned Professor of Dijon to live, while his numerous chemical and botanical researches have long been consigned to oblivion.

Results described as brilliant have been reported by a long series of physicians of all countries, from Haller and Sömmernig, in the last century, to the most recent authors in our systems and dictionaries of medicine. The mode of action is unknown; it is given empirically, but those who have faith in its efficacy hold that a positive solution of the calculi takes place under its use; others think that it is beneficial only in relieving the colic and permitting the stones to pass more easily, and the title of Durande's original paper leads one to infer that this was his view. Stimulated by the cure of a case at Professor Botkin's clinic, by the use of this remedy after a prolonged trial of alkalies, LEWASCHEW (Virchow's *Archiv*, cii, 3) has made a very careful experimental study of the action of the sulphuric ether and turpentine, alone and combined, on the biliary secretion. By means of carefully devised fistulæ, through which the bile could be collected and estimated, the effect of the remedies when introduced into the stomach could be ascertained. The experiments very clearly show that, singly or combined, the ingredients of Durande's mixture powerfully influence the secretion of the liver, increasing it in quantity, and diminishing the consistence. There does not appear to be much difference in the intensity of the action of the separate ingredients, but the turpentine acts more slowly. The combination, tried in various proportions, did not have any greater influence than when the drugs were used singly. The mixture of ether and castor oil, as recommended by Duparcque, did not induce a more active secretion than the ether alone. The effect of the remedy in man may be said to depend, not on any power of solution of the calculi, but on its great cholagogue effect, and the furthering of the passage of the stones through the duct. No doubt, too, by diminishing the consistence of the secretion it may prevent the development of other concretions. The ether was found to have a decidedly more intense action on the secretion than the bicarbonate of sodium; on the other hand, in comparison with the salicylate of sodium, the action of Durande's remedy is slight and transitory, and the author recommends it strongly as the most effective agent in augmenting the quantity and reducing the consistency of the bile. In his former investigations on the action of alkalies on the composition of the bile, he found the effect much intensified by combining them with large quantities of water, and, no doubt, we here have the secret of the success of the cure of cholelithiasis by Vichy and other mineral waters.

MEDICINE IN CHINA.

THE second annual report (1884) of the Soochow Hospital, which is under the control of Methodist Episcopal missionaries, shows a very gratifying state of affairs and real progress in the work of introducing Western medicine into China. Everywhere, throughout the East, the advantage of combining the medical and theological professions is so evident, and the demand for medical missionaries has become so urgent, that many earnest men, to be better equipped for the work, have temporarily given up their proselytizing labors to return to Europe or this country to study medicine.

At several stations hospitals have been established at which the natives can receive treatment, and medical schools at which native pupils can follow a regular course of instruction. The Soochow Medical School, established in 1883, has eleven native students, all, save one, Christians, and the course which is laid down seems very complete, comprising a five years curriculum, with a thorough preliminary examination in Chinese classics, and a nine months' session. The lectures are in the native language, and through the labors of Osgood, Kerr and others, the students have an ample supply of text-books in Chinese.

At the hospital nearly 12,000 patients were under treatment during the year, the great majority, of course, in the dispensary. Some interesting facts may be gleaned from the classified list of diseases treated. More than a third of the cases are under the three divisions of intermittent fever, diseases of the eye, and diseases of the skin. A remarkable feature is the prevalence of quartan ague. Of the cases of intermittent, 1391 in number, 1253 were of this type, and in nearly all the paroxysm occurred in the afternoon part of the day. Another singular fact is that foreigners, living for years in the same locality and exposed to the same source of poison, will almost invariably have the tertian form, while their Chinese servants or neighbors have their chills after an interval of two days. The absence of severe remittent and congestive types of malarial poisoning is somewhat remarkable. There were no cases of the filaria hominis sanguinis, and no instances of the distoma of the bronchial tubes, which has been shown to be a fruitful source of hæmoptysis is the East. Two hundred cases of the opium habit were under treatment, and it is proposed to put up a separate opium refuge so soon as funds are forthcoming.

The financial statement shows how much can be done in practical charity with very little money. The record of attendance at chapel alone reminds us that this is a report from a missionary hospital, and it reminds us too of the labor and toil which these zealous members of the profession gladly undertake for the sake of a higher object. The mental con-

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dition of sick persons is mobile and favorable to change, a psychological fact which has been taken advantage of by theologians in all ages. When the blood creeps and the nerves prick and tingle, when the bones and flesh are touched, the mind is unstable and easily moved, and the missionaries find that in the process of repairing the "frail earthen vessels," they have the best opportunities for the work to which their lives are devoted. In the modern crusade the stethoscope has replaced the sword.

No notice of the state of medicine in China would be complete without a reference, however brief to the splendid work which the medical officers of the Imperial Customs have been and are doing to advance our knowledge of the diseases of the East. We could wish the *Imperial Customs Medical Reports* a much wider circulation than it seems to have, in this country at least, for scattered through its issues are many important contributions of general interest. Working in an unknown field, they have found many things new and strange, particularly among parasitic diseases. The researches of Patrick Manson on the filaria disease have been of extraordinary interest to biologists and physicians, and within the past few years we have in succession the announcement of the discovery of two new parasitic affections due to the distomes or flukes, helminths which have heretofore played a minor rôle in human pathology. Parasitic hæmoptysis appears endemic in certain regions of China and Japan, and is due to the presence of the distoma Ringeri in the bronchial tubes and lung tissue. In some districts a considerable percentage of the people are affected with severe liver disease, due to the occurrence in the bile passages of another fluke, distoma perniciosum, which produces a disease similar to the "rot" in sheep, caused by the common liver fluke. The last numbers of the *Reports* contain an interesting description of the disease by Dr. Wallace Taylor. A second species of distome has been found in the liver of man in Japan and China, and as it does not appear to produce a severe disease, it has been called D. innocuum. Bælz has lately affirmed that this species is identical with the D. perniciosum, but in the specimens which we had an opportunity of examining there were sufficient differences to indicate that they are distinct species, or, at any rate, well-marked varieties.

In the beginning of the Congress controversy extreme solicitude was expressed by some members of the Association for the assertion of its supreme authority in everything pertaining to the organization of the Washington meeting, and its *Journal* devoted many pages to advocating this point. Now, however, that the new Executive Committee has proclaimed its independence of the parent Committee and of the Association, by formally declaring that its acts are "not subject to revision, amendment, or alteration by either the Committee of Arrangements or the American Medical Association," the *Journal* has not a word to say against their usurpation of power, or about the propriety now of maintaining the authority of the Association in the premises. It does not point out how the *new* Committee have laid themselves open to "the charge of having ignored the body from which its existence and all its powers had been derived," or how *they* "coolly turn the Association into a 'football' and contemptuously kick it out of their way." It no longer talks about members making "a bold attempt to use the National character and prestige of the American Medical Association as a 'decoy duck' to obtain their own appointment to office." The authority of the Association is openly defied by its own Committee, and its *Journal* suddenly becomes silent on the subject.

REVIEWS.

DISEASES OF THE TONGUE. By HENRY T. BUTLIN, F.R.C.S., Assistant Surgeon and Demonstrator of Practical Surgery and Diseases of the Larynx, St. Bartholomew's Hospital; lately Erasmus Wilson Professor of Pathology at the Royal College of Surgeons. Illustrated by chromo-lithographs and engravings. Small 8vo. pp. 445. Philadelphia: Lea Brothers & Co., 1885.

THIS book, the latest issue of the "Clinical Manuals for Practitioners and Students of Medicine," is a model of its kind. Since Fairlie Clarke's work appeared in 1873, no extended treatise upon diseases of the tongue has been published in the English language, and Clarke's book is now in many respects far behind the times. This treatise is, then, specially welcome, all the more so that the text is really *illustrated* by a sufficient number of admirably executed colored plates, and not rendered more confusing by absurdly colored daubs.

The work has been written by one whose opportunities have peculiarly fitted him for the task, since he teaches not only from a clinical but from a pathological standpoint. While we see very much to praise, there are yet a number of points which seem to us open to criticism. Lack of condensation and needless repetition might have been avoided in some sections, and some omissions are regrettable, such as the overlooking of the fact that certain bursæ, when enlarged, may simulate tumors of the tongue. Still these are but minor blemishes, and we heartily commend the book to our readers. We wish that all general practitioners would read at least two portions, viz., that which treats of mucous patches, etc., of the tongue, wherein it is shown that constitutional treatment, without local, is too often of little value; and the following: "If there be one thing more harmful than another in the treatment of simple indolent sores of the tongue in persons over thirty years of age, it is the application of a strong caustic." Either let the disease alone, or remove it with the knife or

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actual or galvanic cautery. Similar remarks are applicable to the treatment of other tongue affections, notably warty growths.

Two other interesting points and we have done, for it would be impossible to do anything like justice to this little book without a many-paged review. Mr. Butlin maintains that in microscopic examinations of scrapings of carcinomatous ulcers, among non-important substances, many irregularly shaped, multinucleated, malformed, epithelial cells, together with "cell-nests," will be found; while in the examination of scrapings of more than one hundred tongues, either healthy or variously diseased, but not carcinomatous, nothing that could be mistaken for a cell-nest was to be observed. He does not, so it seems to us, unduly magnify the importance of such microscopic examinations, to the exclusion of a careful consideration of all the general characters of the disease, but merely says that in a number of cases he or his colleagues have been by such means enabled to make a definite diagnosis in doubtful cases.

The second and last point which our space will enable us to mention is the peculiar view advanced by Mr. Butlin, that "fur" on the tongue, either in health or disease, is essentially due to the multiplication of microorganisms, chiefly micrococci and bacteria subtilis. His arguments in support of his views could only be stated by means of long quotations or paraphrases, so that we must refer the reader to the original.

The author is occasionally a little slovenly, and consequently obscure, in his style, and indulges in certain inelegancies which mar his work in critical eyes; but we again repeat that the book is a good one, and a real addition to our surgical literature.

SOCIETY PROCEEDINGS.

THE PHILADELPHIA PATHOLOGICAL SOCIETY.

Stated Meeting, September 24, 1885.

THE PRESIDENT, E. O. SHAKESPEARE, M.D., IN THE CHAIR.

DR. WILLIAM OSLER presented specimens of

TÆNIA ECHINOCOCCUS.

This rare parasite was reared experimentally by feeding a dog with hydatids from the liver of a pig. The animal was killed about seven weeks after the feeding, when the small intestine was found to contain many hundreds of the mature tapeworms. The portion of bowel exhibited had many adherent to the mucous membrane. From the small size of the worms, only a few lines in length, they are very apt to be overlooked. Cobbold states that the only specimens procured in England have been experimentally reared. Dr. Leidy has never met the adult worm in this country. That it must occur here in the dog is very evident, from the frequency with which echinococcus cysts (the larvæ) are met with in the hog and other animals.

CYSTICERCUS CELLULOSUS.

DR. OSLER exhibited the heart, brain, and a portion of the flesh of a pig containing the "measles," as the larvæ of the tænia solium are called. Both organs were thickly studded with the cysts, which were also very numerous throughout the muscular system. The animal was fat, and seemed to suffer very little inconvenience. Attention was called to the cysts beneath the tongue, and to the possibility of telling whether an animal was measled by an examination of this part during life. Microscopic slides of the parasites were shown, and a slide of a cysticercus, with a very large caudal vesicle, from the omentum, in which situation they may grow to the size of a walnut.

DISTOMA HEPATICUM; EFFECTS ON THE LIVER.

DR. OSLER also showed the liver of an ox with enormous enlargement of the bile vessels and calcification of their walls, due to the chronic inflammation excited by the presence of the flukes. The main ducts were thicker than the thumb, and even the smaller tubes were as hard as the stem of a clay pipe. The liver substance was wasted, but not cirrhotic. In spite of this extensive disease, the animal was well nourished. Specimens of the flukes in spirit and mounted were also shown.

DR. WILLIAM PEPPER presented before the Society the specimens of

TÆNIA FLAVO-PUNCTATA,

described by Prof. Leidy, in the *American Journal of the Medical Sciences*, for July, 1884. This species has never but once before been seen and recognized, and then by Weinland, of Boston, in 1858. Both specimens were expelled from young children, and averaged twelve inches in length.

DR. PEPPER also presented the head and neck of a specimen of

TÆNIA MEDIO-CANELLATA.

It occurred in a young man. A course of starving, followed by castor oil and pelletierine, removed a portion of the worm; afterward a repetition of the starving process without the castor oil, but with the alkaloid, brought away the entire worm dead.

Dr. Pepper said he was particularly interested in this series; it spoke forcibly of the necessity of studying comparative pathology. The specimens were very perfect, and more instructive than more highly organized species. In practice he had found the T. medio-canellata as difficult to expel as the tænia solium. The exhibition of the small variety, the flavo-punctata, taught the necessity of careful examination of the stools.

DR. DE SCHWEINITZ exhibited the kidneys, ureters, and bladder from a man who died after the operation of

LITHOLAPAXY.

The patient, æt. 73, had for two years previous to the operation suffered with straining during the act of micturition, and other symptoms of hypertrophy of the prostate gland and vesical calculus. The urine contained albumen, pus, epithelium, and granular casts, and had a specific gravity of 1018. The patient's habits were intemperate. The operation of litholapaxy was performed, marked difficulty having been experienced in the introduction of the instruments.

After the operation the patient exhibited great restlessness, precordial pain, and a rapid, feeble pulse. Later he became comatose, and died twenty hours after the operation, the immediate cause of death being, ap-

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parently, the formation of a heart-clot. The *post-mortem* examination was made about ten hours after death:

Body well made; nothing of note anteriorly; the usual ecchymoses posteriorly. *Thorax:* Old pleuritic adhesions on the right side; left side free. Lungs crepitant with slight posterior congestion. Heart surrounded with fat; muscular fibres flabby; valves normal; firm "chicken-fat" clot in the right ventricle. *Abdomen:* Position of viscera usual. Marked deposits of fat in the omentum. Liver slightly enlarged, soft, but otherwise normal. Both kidneys granular and containing cysts. Bladder thickened and showing two spots of ecchymoses on the mucous surface. Prostate enlarged; other organs normal. Brain and membranes not examined.

DR. TYSON thought this case added one more to the list showing the impropriety of crushing for stone when kidney disease is present. He did not know why, but under such circumstances the cutting operation is more suitable. Dr. Tyson cited the case of Louis Napoleon as an instance of the danger of crushing in the presence of kidney disease. Dr. Tyson said, in answer to a question of Dr. Barton's regarding the kidneys, that they were contracted, though not markedly so, as there was good secreting structure left. The cysts were part of the pathological anatomy of granular kidney. He believed the cause of death to be uræmia.

DR. DE SCHWEINITZ said that the urethra was not examined, and agreed with Dr. Tyson that the cause of death was uræmia. This was the more probable because an officious attendant, against orders, had administered rather full doses of morphia.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, October 1, 1885.

THE PRESIDENT, ABRAHAM JACOBI, M.D., IN THE CHAIR.

DR. R. VAN SANTVOORD read a paper on

OBSCURE CASES OF WEAK HEART.

Having alluded to some of the numerous causes of weakness of the heart structure without valvular disease, very prominent among which is typhoid fever, he stated that in many instances a positive diagnosis can only be made after a very careful and thorough investigation of the case.

The first case which he narrated was that of a strong and fresh-looking man, 42 years of age, who had the appearance of robust health. His occupation was that of a drygoods salesman, and except that he took an occasional drink with a customer and ordinarily ate his meals too rapidly, his habits were good. He suffered from drowsiness, which would often come on during the day, and from frequent headache; while his mind was apt to be forgetful. He was also somewhat short of breath in going upstairs, and there was slight disturbance of digestion. The heart sounds (especially the first sound) were rather weak, and there was a distinct reduplication of the second. There was no valvular trouble, and the sphygmographic tracing was of no special significance.

He was placed on ten minim doses, three times a day, of tincture of digitalis and of tincture of nux vomica; the latter being added on account of the digestive trouble. At the end of two weeks the heart sounds were louder, but the general health was not improved. The remedies at first prescribed were then substituted with caffeine and strychnia, and under the use of these last he rapidly recovered. Afterwards, when he felt the drowsiness or headache coming on, a few doses of caffeine soon dispelled the trouble.

The second case was that of a stockbroker, 38 years of age, who came of a gouty family, and had had several attacks of gout himself. He had been much harassed by business anxieties, and for the past four years had been in the habit of indulging very freely in the use of spirits. He was prematurely gray, looking much older than he really was, and altogether exhibited a very haggard and careworn appearance. He complained of shortness of breath in going upstairs, and it was ascertained that he had had some albumen in his urine, with occasional puffiness about the ankles, especially when he drank brandy. He was in the habit of taking from twelve to fourteen drinks of whiskey a day, and eating but one meal during the twenty-four hours. When examined, he was found to be suffering considerably from dyspnœa and wheezing. The first sound of the heart was weak, and the second hard and metallic. The urine was slightly albuminous, and of a specific gravity of 1024. One fatty cast was found.

There was great improvement in his case when he stopped drinking whiskey; but when he began to go about again after resting for a time, the dyspnœa returned. He was then ordered ten minims of tincture of digitalis three times a day, together with appropriate tonics, and in two days he was able to sleep flat on his back throughout the night. At the end of six months he had gained measurably in health and strength, though a small amount of albumen was still detected in the urine by means of the mercuric iodide test, and there was also found a number of hyaline cysts. He had previously been rejected by an examiner for a life insurance company on account of the quickness of his pulse. The cardiac disturbance was unquestionably the predominant trouble in the case, and the existence of grave disease of the kidneys was considered improbable on account of the slight and varying amount of albumen in the urine, the normal quantity of the latter, and other circumstances that were noted. The sphygmogram of the patient was exhibited.

The third case was that of a gentleman 54 years of age, who had always been addicted to athletic sports, and had constantly enjoyed good health with the exception of constipation. For a long time he had been obliged to get up in the night to urinate. He now suffered from headache and drowsiness, and was thin, sallow, and anxious looking. There was found to be considerable dilatation of the left ventricle, and also a faint systolic murmur. The cardiac sounds were weak, especially the first sound, and the urine was albuminous. He sought medical advice on account of an intense pain in the vertex, and insomnia. Bicarbonate of soda and gentian were first prescribed, on the supposition that the headache was due to gastric derangement, but no relief ensued. The patient was then put upon tincture of the chloride of iron with digitalis, and at once there was marked improvement in his condition. From the

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enlargement of the heart and the great quantity of urine passed, together with the amount of albumen found in the urine, it was inferred that the condition present was one of granular contracted kidney with resulting heart weakness. The sphygmographic tracing of the case was then shown.

After this the patient went to the South for some months. He held his own for a year, and at the end of that time it was found that there was no albumen in the urine, which was of a specific gravity of 1015; the quantity passed in twenty-four hours being seventy ounces. Hence, it was concluded that the polyuria was due to some other cause than granular contracted kidney, and probably of urethral birth, as it was ascertained that the patient had a stricture, which he had contracted thirty years before in the ordinary way. The cardiac feature in this case, therefore, seemed to be of an independent nature.

The fourth and last case narrated was one in which the symptoms were so striking that the trouble could hardly be called obscure. The patient was a boy of fourteen, who had recently recovered from the measles, and he was found to have a loud blowing systolic murmer, with marked venous hum. There was cardiac dilatation present, such as is apt to occur in long-standing anæmia; and the patient's sphygmogram showed a very considerable degree of arterial tension.

Dr. Van Santvoord then passed in review the group of cases described, and made a number of observations in connection with them. As to reduplication of the sounds of the heart, he said that reduplication of either one or the other of them was present in three out of the four patients. He referred to the various hypotheses which had been suggested to account for this phenomenon of reduplication, and expressed his agreement with Bramwell in the opinion that it was probably due to asynchronous action of the ventricles. In the third case there was marked dilatation of one ventricle, and it was not difficult to see how, under the circumstances, such asynchronous action was likely to occur. Apart from speculation, persistent reduplication of the first sound of the heart had been repeatedly noted in grave lesions of the cardiac tissue. Weakness of the first sound of the heart was found in three of the cases. In the second case the second sound was loud, and in the third weak, as the ventricles contracted more gradually in this instance.

He next made some comparisons of the action of digitalis and caffeine on the heart. The latter he had found to slow the action and increase the amplitude and tension of the pulse. It seemed probable that it had a slighter influence upon the vaso-motor apparatus than digitalis, and, at all events, the fact remained that caffeine is sometimes efficient in cases in which digitalis fails to act satisfactorily. He believed it to be a better and safer agent than digitalis in acute diseases where there is cardiac weakness. An eminent French authority had advised that it should be pushed until two grammes were taken daily.

Dr. John C. Peters referred to a case still under observation, of a gentleman over sixty years of age, who had always been careful in his habits, and apparently enjoyed perfect health, though he had some reason to suppose that his system was not sufficiently well nourished. He was taken with acute pain in the epigastrium, and when called to see him, Dr. Peters was astonished at the extraordinary weakness of the pulse and failure of the heart which he found. There was at first slight congestion of both lungs, which was followed by bronchitis and some pulmonary œdema; but the temperature was now above 102° F. Dilatation of the right ventricle, with extreme dyspnœa, rapidly developed, and the patient for a considerable time was in a very precarious condition. Since then he has greatly improved so that he is now able to walk a mile; though the heart still remains weak. He had been treated with the ordinary remedies, and in regard to the use of nux vomica, Dr. Peters remarked that it often seems to act more efficiently than digitalis. Like other observers, he had frequently noticed weakness of the heart in connection with pneumonia, and he had formerly believed this to be due to the formation of a clot in the right side of the heart.

Dr. Leonard Weber said that he had observed no effect from caffeine in cases of dilatation in connection with probable fatty degeneration of the cardiac tissue. He had, however, had good results from the action of digitalis; he had never used the tincture. The infusion, if obtained from perfectly reliable sources, is in every way preferable; but the best preparation of all is undoubtedly Squibb's fluid extract. In delayed recovery of the heart, after acute diseases, he had found caffeine very efficient, and the preparation of it which he is in the habit of using is the hydrobromate. This is generally employed in connection with appropriate tonic remedies. In conclusion, Dr. Weber spoke of the kind of cardiac weakness met with in men of over forty years of age, and weighing more than 250 pounds, where urgent dyspnœa arises from the deposit of layers of fat between the muscular fasciculi of the heart. The successful treatment of such cases is found to consist in the diminution of the amount of liquid taken, the regulation of the food for the purpose of reducing fat, and the employment of as much exercise (principally walking) as can be well borne.

Dr. E. Darwin Hudson remarked that affections of the heart are not a complicated matter. Whatever might be the characteristics of the difficulty attracting attention, he thought that the experienced physician will at first apply all the tests for the detection of the presence of organic cardiac trouble. If after a thorough examination it is found that there are no evidences of organic disease, he should next investigate the condition of the various viscera in turn, commencing with the kidneys, and then passing on to the liver, stomach, and other organs. A very large proportion of the cases of temporary cardiac disturbance are undoubtedly produced by digestive troubles and perversion of assimilation. Especially have these a marked effect in lowering the pulse; so that if a patient comes to us with a pulse of 40, or perhaps only 32, it can be pretty safely predicted that a cholagogue cathartic will promptly bring it up to the normal standard. If, however, no cause for the cardiac trouble can be found in any of the other organs, we should conclude that it is probably due to a derangement of the ganglionic action of the heart itself, from some defect in the blood supply, and for this condition such remedies as digitalis, caffeine, and convallaria are appropriate.

Dr. John P. Garrish called attention to the impor-

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tance of the prevention of such diseases as constituted the present subject of discussion. The use of tobacco, he thought, is responsible for a very large number of these cases of cardiac weakness. In addition to guarding against the excessive use of this, it is also necessary that the diet should be of proper character (the food being highly nutritious, but not stimulating), and that changes of temperature should be carefully provided against, especially by the wearing of flannel. At the same time the individual should avoid excitement. As to the remedies that are of most service in weak heart, he had obtained very satisfactory results indeed from the combination of tincture of digitalis with tincture of stramonium, as suggested to him by the late Dr. Valentine Mott.

DR. ANDREW H. SMITH said in regard to the use of digitalis, that it performs two distinct functions. In the first place, it affects the cardiac action; and, secondly, when given in small doses, it affects the cardiac nutrition.

DR. FRUITNIGHT stated that some time since he had resorted with success to the use of tincture of the night-blooming cereus in a case of apoplexy followed by softening, in which no effect upon the cardiac weakness present was produced by either digitalis or convallaria. Since then he has employed it repeatedly, and has always found it efficient. The dose is from three to ten minims.

DR. VAN SANTVOORD closed the discussion, and in the course of his remarks he spoke of the case which Dr. Peters had described as being one of great interest and instruction. It seemed to him probable that in this instance the cardiac weakness had existed for a long time, but it was only when the acute attack spoken of came on that the heart proved inadequate for its work. Under ordinary circumstances it was competent to meet the demands made upon it, but it was not able to stand the extra strain thus imposed upon it. Dr. Hudson had pointed out very clearly in his remarks the manner in which these cases should be studied; but he had reason to believe that the difficulty is not recognized as it should be by the mass of general practitioners, and it was on this account that he had prepared his paper.

NEW INVENTIONS.

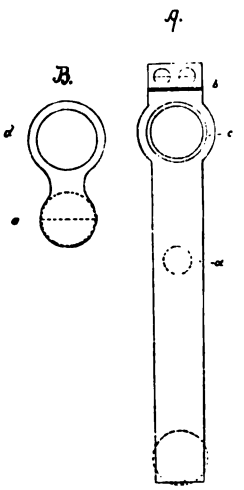
SOME ADDITIONS TO THE OPHTHALMOSCOPE.[1]

BY B. ALEX. RANDALL, A.M., M.D.,

OPHTHALMIC AND AURAL SURGEON TO THE EPISCOPAL AND THE CHILDREN'S HOSPITALS, PHILADELPHIA.

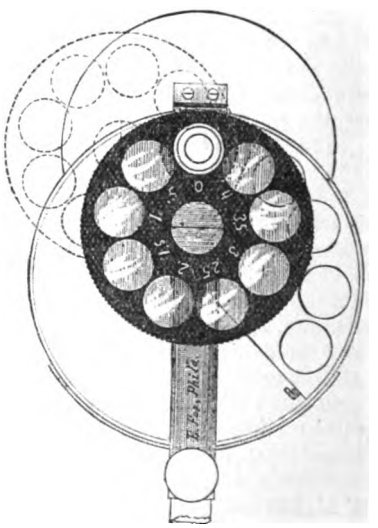
Cylindrical Lenses. Anyone who makes much use of the ophthalmoscope not infrequently meets cases where cylinder glasses in the ophthalmoscope would be of service. Of course, the desired lens can be taken from the test-set (if at hand) and placed behind the mirror, and some instruments, like that of Noyes, are fitted with a spring-catch to hold it there; yet such an arrangement is but bungling at the best, and the mounting of the Rekoss disk is demanded for these as well as for the spherical lenses. The adjustment for the direction of the cylinder axes made use of by Parent in his earlier ophthalmoscope seems the most satisfactory, and has been adopted with little modification in the arrangement here set forth. That such an arrangement has not been well received heretofore, probably depended more upon the other qualities of the instrument of which it formed a part; and the writer's cardinal principle of construction has been that the addition should be made applicable to the ophthalmoscope of Loring with little or no change in the size, weight, or balance of that unequalled instrument. A description will render easy the understanding of its working and its mode of adjustment to the new form of the Loring ophthalmoscope, for which it is more especially designed.

FIG. 1.



The solid covering quadrant which bears the pivot for the Rekoss disks of the original instrument is re-

FIG 2.



placed by a piece of metal of the form figured at *A*, bearing the pivot (*a*) as before, and extending up to be fastened by its shoulder (*b*) to the body-plate of the

[1] Both additions are constructed by E. Fox, Optician, Seventeenth and Chestnut Streets.

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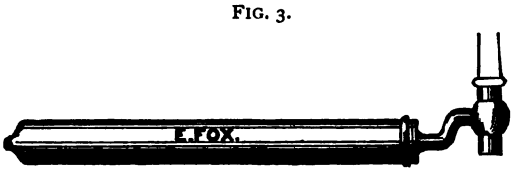
instrument above the lenses. Concentric with the sight-hole of the ophthalmoscope, this is widened and supports a short tube (*c*). Moving upon this tube by a collar fitting *d*, is a short arm (*B*), having at its other end the pivot (*e*) on which turns the disk of cylindrical glasses. This disk (Fig. 2) contains nine openings—one empty, the rest holding *concave* cylindrical lenses in the following order: 0.5, 1, 1.5, 2, 2.5, 3, 3.5, and 4 dioptres. The axis of each lens is at right angles to the radius of the disk passing through it, or, what amounts to the same for the lens at the opening, at right angles to the line of the arm on which the disk is carried. When, therefore, this arm is directed downwards, as in the cut, the cylinder-axes are horizontal as the glasses come into position at the sight-hole of the instrument; and, as the axes of concave cylinders are generally required at or near the horizontal, this is the position which the disk will most frequently occupy in use. Combination with the underlying convex spherical lenses will give the equivalent of any *convex* cylinder desired, either alone, or in combination with a spherical; while, of course, any concave spherical can be added to any cylinder—*e.g.*, — 1 cyl. axis 180° ⊃ + 1 sph. = + 1 cyl. axis 90°; — 1.5 cyl. axis 180° ⊃ + 3 sph. = + 1.5 sph. ⊃ + 1.5 cyl. axis 90°; — 3 cyl. axis 180° ⊃ + 1.5 sph. = + 1.5 cyl. axis 90° ⊃ — 1.5 cyl. axis 180°; etc.

The arm bearing the disk of cylinders can be rotated to any extent desired, and the axis of the cylinder at the sight-hole thus turned to any given direction (*e.g.*, to be vertical when the disk is in the position indicated by the dotted lines), the disk revolving equally well in all positions and furnishing the cylinder of the strength required. A spring-stop serves, as with the disk of sphericals, to centre each lens accurately before the opening. The large head of the screw (*e*) which forms the pivot for the cylinder-disk, is so placed that its cleft marks the direction of the axis of the cylinder which is at the sight-hole.

The maximum addition to the thickness of the instrument due to the new disk is about 2 millimeters (7.75 : 10); the addition to the weight, 3 grammes (48.6 : 51.8); figures which can probably be reduced without sacrifice of either rigidity or durability; the change in its centre of gravity and balance is hardly appreciable. The modification of the original instrument is, therefore, very slight; but one or two drawbacks should, in fairness, be pointed out. The main disk of the instrument is wholly untrammelled in its working; but the supplemental quadrant (indicated in outlines in the cut) is somewhat affected. It loses its covering quadrant and the questionable benefit of its protection; and the pin projecting from its surface, as now made, to facilitate its movement, cannot pass the sight-hole of the instrument—indeed, it engages the new adjustment before the 0.5 lens, which is adjacent to it, comes into position at the opening. This is easily met by a readjustment of the pin, as shown in the drawing, and is completely avoided in the new arrangement of these lenses which the writer has in contemplation. Without change, it proves no actual inconvenience in working to those who, like the writer, make much use of the + 0.5 lens, but little or none of the — 0.5. More important to one whose use of the instrument has not yet given him a sort of instinctive knowledge of what lens he is using, the numbering of the lenses is somewhat hidden, and a rearrangement of these figures would be necessary to show at first glance what lens or lenses are at the sight-hole. To those for whom the addition is especially designed, ophthalmoscopists who have and know the Loring instrument and wish to add to its conveniences, these drawbacks will not be great. Those who have not yet learned the instrument and given it the warm appreciation it deserves, may find certain advantages in a more modified form which the writer will bring forward as soon as actual work shall have confirmed the value of the theoretical improvements which it embodies. The cylindrical disk can be made detachable, and laid aside when not desired; but it would be at some sacrifice of lightness, strength, and smoothness of working.

An "Artist's Attachment." The difficulties of sketching the appearances of the eyeground are considerably increased, and the slowness of accurate portrayal largely augmented, by the need of laying down the ophthalmoscope in order to give both hands to the drawing. "Artists' ophthalmoscopes" carried upon a brow-band have been designed to meet this, and are doubtless valuable; but either their simplicity limits their usefulness from the small number of lenses at command, or else their cost narrows their use. In drawing, too, more than at other times, astigmatism is apt to be much in the way, and demands correction by cylindrical lenses—in the instrument, if possible. The ideal means of meeting all or the most of the difficulties is so to arrange that any ophthalmoscope which is at hand, however complex, may be employed, and yet both hands be left free; and the simpler and less expensive the means to this end the better. Such a means is afforded by a wooden "handle" to be held in the mouth,[1] of oval section, about six centimeters in length by one centimeter in thickness, covered by a bit of rubber tubing.

FIG. 3.



This has at one end (with or without the "goose-neck" represented in the cut) a ball of brass through which slides the short cylinder into which, in lieu of the ordinary handle, the ophthalmoscope is screwed. Most ophthalmoscopes (Loring, Knapp, Gowers, etc.) unscrew at about seven centimeters below the sight-hole, a distance closely approximating the average difference of level of the eye and the mouth. The exact adjustment for any instrument and observer is readily given by the sliding of the cylinder through the ball or by the bend given to the "goose-neck." The amount of control over the instrument which can be conveniently exercised by the mouth, will probably surprise those who employ this simple attachment.

[1] A somewhat similar arrangement is used by Prof. Politzer for his ear-mirror.

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CORRESPONDENCE.

TRAINING SCHOOL FOR NURSES.

To the Editor of THE MEDICAL NEWS.

SIR: I take pleasure in sending you the accompanying statistical table regarding the practical working of training schools for nurses.

Although this table is dated 1883, I am not aware of anything similar on the subject bearing upon the same points. I believe that there are hospitals away from the cities named in the tables, large enough to support training schools, and which would do so if they were convinced that these are entirely practicable and efficient.

Hoping the table may prove of value to your readers, I remain

Very truly yours,

WALTER B. PLATT.

165 PARK AVENUE, BALTIMORE, October 9, 1883.

Table of Statistics of Several Training Schools for Nurses, in their relation to their Hospitals and to each other, prepared that the friends of the Connecticut Training School may at the close of its Tenth Year understand its position as compared with similar institutions elsewhere.

DECEMBER, 1883.	No of T. S. Nurses, not including Supt.	Average No. patients under T. S. care.	Average to each Nurse.	Cleaners *attached* to each ward.	Men Nurses each ward.	Do T. S. Nurses dress wounds in men's wards?	Are maternity cases received?	Do T. S. Nurses care for male Erysipelas patients in isolating wards?	Does Hospital bear all expenses of School?	Yearly average of T. S. salaries paid by Hospital.	Does the Supt. of Hospital think the T. S. valuable to the Hospital?	Does he know of any as good and cheaper plan?	How long is Hospital course?	Does School send Nurses out to private families the 2d year?
MASSACHUSETTS GENERAL HOSPITAL,	53	170	3 1/53	1	For the Hospital 6	Under the direction of House Staff or Assistants to them.	No	"No such wards. Nothing like an epidemic for 7 years." About 2 weeks' nursing yearly.	Board, lodging and washing, and part salaries.	$3,527.33	"No Hospital of any size is complete without one."	"Any other system inferior in every respect."	2 years.	No.
NEW YORK, 15th St.,	36	140	3 32/36	1	1	No.	No	No rule. Sometimes.	Entire.	About $5,700.00	"In all its developments and departments good only and always good."	No.	18 mos.	No.
HARTFORD,	16	94	5 14/16	2 for the Hospital.	2	Yes.	Yes	Sometimes, or Hospital hires extra help.	Entire.	About $1,962.00	"Decidedly."	"All things considered, no."	1 year.	Yes.
MT. SINAI, New York,	19	75	4	In women's wards 1 men's 2	3 no women.	No women nurses in any such wards.	No	No T. School nurse is employed in *any* such ward.	Salaries partly.	Not ascertained.	"Great benefit but expensive."		1 year.	Yes.
BELLEVUE,	50	260	5 10/50	1 or more if needed.	1	In one of them.	No	Only for women.	Salaries and washing partly.	$6,722 00	"Certainly I do."	No.	1 year.	Yes.
BOSTON CITY HOSPITAL,	61	286	4 42/61	1 woman with an assistant in every ward. 21 men Nurses and cleaners in addition		Yes.	No	One ward. 26 beds contagious diseases. 12 nurses and 1 cleaner.	Entire expense.	$8,820.00	"Yes."	"The cheapest and best."	2 years.	No.
NEW HAVEN,	22[1]	112	5	Partial services of one woman in each women's ward. One man who acts as Nurse and also cleans in each men's ward, with occasional help.		Yes.	Yes	Always for men and women. Isolating wards open for the care of Erysipelas a large part of the months of Feb., March, April, May, June, Oct., Nov., and Dec.	Board, lodging and washing.		I do.	Not that I know of.	1 year.	Yes.

1 One additional pupil is detailed to kitchen service, simply a duty not performed by other Schools.

It will be noticed that the New Haven Training School has been conducted with *less help* from Hospital servants, and at *less expense* to the Hospital with which it is connected than any other institution mentioned.

THE STUDY OF OBSTETRICS IN PRAGUE.

FROM the moment the English-speaking medical student puts foot on Continental soil, he hears the most varied and conflicting reports of the advantages of

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Prague as a place to study and pursue practical obstetrics. He hears that he can live comfortably in the hospital for a "mere song," and that opportunities are afforded him to perform "all the operations." But he occasionally hears these statements contradicted in the very strongest terms. It may, then, be of some value to the American student intending to take the Continental trip to be told in plain terms what opportunities for the study of obstetrics really exist in Prague.

The Gebärhaus is a fine, irregular pile of brick buildings, freely ornamented with a steeple over the "Baptismal Chamber," giving to the whole rather a monastic and religious appearance. The building is quite new,—four or five years,—the wards being lofty, clean, and well ventilated. Since the rupture between the German and Bohemian citizens, some three years ago, the institution has been divided into three equal parts. One under German control; one under Bohemian, and one for the training of nurses, which, also, is under Bohemian control. Each division is quite independent of the other, and admits cases in regular rotation. The number of births ranges from 2700 to 3000 yearly, so that each division has from 900 to 1000 cases annually. It is to the German division that foreign students generally go, hence to this I will confine my future remarks.

The vacation months, April, May, August, and September, are usually chosen, as at this time there are no junior students attending. Dr. Fleischman, Prof. Breisky's first assistant, a very zealous and able teacher, gives two courses, each of four weeks' duration, during each of the vacations. The course consists in digital and external examinations of pregnant women, usually in the last week of pregnancy, combined with external measurements by Baudelocque's pelvimeter, and the various obstetrical operations on the phantom. The fee for the four week's course is 25 *fl.*—$10; in addition to this, one is obliged to pay 10 *fl.* for permission to live in the maternity and "practise." It is, particularly, in relation to the latter that the most diverse statements obtain.

From extended inquiries, and personal experience within the hospital, I am enabled to define "practice" as the mere privilege of examining women in labor, according to a definite system. Three men are allowed to examine the same case, provided it is a normal one, and only the first man on the list is allowed to make further examinations during the course of the labor. The nurses, who, by the way, are very efficient, deliver all normal cases, the assistant being sent for only in cases requiring operative interference. This he always does himself, and no member of the class is allowed to put on the forceps, contrary to the impression that generally seems to prevail. It is considered quite a stroke of good fortune if one gets an opportunity of supporting the perineum and passing the catheter once.

Strict antisepticism is carried out to, perhaps, what may appear a ludicrous extent. After one has handled the "alcoholic fœtus" used in the operative course, he must take a tub-bath, and change his underclothing, before being allowed to "practise." Prior to making a digital examination the hands and forearms must be well scrubbed, then bathed for five minutes in a corrosive sublimate solution (1 to 2000), rinsed with pure water, and dried. The statistics, which are among the best on record (mortality a trifle over ¼ per cent.) seem to justify these precautionary measures. But the nurses and assistants have suffered, far more than once, from slight attacks of salivation by this free use of the sublimate in ablution.

Nature is interfered with as little as possible; the forceps are very seldom applied—not more, I think, than once in fifty cases. Every tear, no matter how insignificant, is carefully sewed with catgut uninterrupted suture. This is done from an antiseptic point of view, so as not to leave any abraded surface which would favor absorption of the decomposing discharges. As may be expected, the number of abnormal cases varies at different periods. But during a four weeks' course a couple of turnings, as many forceps applications, a few cases of eclampsia, and a craniotomy may be safely expected.

The living accommodations in the hospital are wretched. A large, dirty ward, with beds arranged on either side to the number of twenty, is consigned for this purpose. Two long deal-tables, with several broken chairs, and a couple of wardrobes, comprise the whole furniture of the "barracks," as it has been truly named. A single sink serves for all ablution requirements. Organisms that are not microscopic, with very ferocious appetites, abound in as great numbers as "microörganisms" in the object-field of a German microscopist. Let ten or twelve men from all parts of the universe, with the diverse toilet and other habits that pertain to such a motley collection, occupy the "barracks," and fancy the floors covered with a couple inches of dirt, let dirt meet the eye in whichever direction it turns, and a fair idea will be gained of the "comfortable residence" provided for in the hospital. It is not practicable to live in rooms outside. There is an isolated double room to be had in the hospital, but strangers are usually too late to obtain this luxury. To a green graduate, who, perhaps, has never made a digital examination, a four weeks' course in Prague, despite the personal inconveniences, will doubtless be of considerable benefit; but any one coming to the Continent for the purpose of familiarizing himself with the various obstetrical operations had better seek another field. H. N. V.

PRAGUE, September 21, 1885.

NEWS ITEMS.

WASHINGTON.

(*From our Special Correspondent.*)

CHOLERA AND TYPHOID FEVER IN MARSEILLES.—Consul F. H. Mason has forwarded to the Department of State the following report describing the progress of the epidemic of cholera in Marseilles: Since the date of his last communication on that subject the outbreak of typhoid fever at Marseilles and its causes, and the measures which have been proposed by the French Government to improve the sanitary condition of Marseilles and Toulon, since the 26th of August, the last day included in the latest report of this series, the daily cholera death-rate, as well as the total mortality from all causes, at Marseilles, has steadily subsided. The deaths from cholera have been numbered by days, 31, 28, 27, 24, 28, 25, 20, 12, 11, 11, 10, 16, 8. Total 251, or a daily average of 19⅓. The total deaths from all causes during the same period have been 85, 65, 67, 58,

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55, 45, 54, 52, 41, 38, 56, 54. Total 683, a daily average of over 56, or about the normal death-rate of the city. The total number of deaths during August was 2311, which is only 167 less than the record of July, the most fatal month of 1884. Meanwhile, the cholera has continued to spread throughout the villages and communities of this district, Nîmes, Cette, Aubagne, St. Marcel, and Salon, being among the more important of the towns attacked.

In various instances the transmission of the disease from one place to another has been the result of gross carelessness. The first fatal case at Arles was that of a workman of that city, who, having attended the funeral of a relative who had died of cholera at Salon, brought back the soiled clothing of the deceased. Nîmes ascribes its first case to a resident who attended the funeral of his father, who had died of cholera at Toulon. These examples are mentioned merely as evidence of the danger which is incurred by a person coming from a pure atmosphere into an infected one, and the importance at such times of isolating, as far as possible, houses and communities in which the malady prevails.

At Marseilles, the cholera has gradually assumed a more benign type, so that, at present, more than a majority of the cases are saved. This improvement is also attributed, in some degree, to a change in the treatment of the disease by most local physicians, who, dismayed by the fatality of the scourge during the early days of the epidemic, have since more or less abandoned the copious use of opium and other powerful drugs, which in many cases left the patient, after the initial vigor of the cholera had been overcome, weakened, and doomed to the fatal typhoid stage which follows excessive medication.

Camphor is one of the most essential elements in the new treatment.

Another interesting fact in the pathology of this epidemic was observed on the 20th and 21st of August, the two most fatal days of this year's visitation. The weather, which for six weeks previously had been intensely warm and sultry, became on the evening of the 19th cool and fresh. A strong, dry, refreshing breeze blew from the west-northwest during the next two days, and during those days the deaths from cholera numbered sixty-two and sixty-nine respectively. So far as is known every case of cholera which occurred during that period was fatal. Every method of treatment seemed alike futile; and the victims included numerous persons living in good estate, and who had committed no imprudence. The well-known bad effect of chill would explain some of this fatality, but it will not explain the malignity of other cases in which the victims were warmly clad and protected from all exposure. We are therefore driven back to the theory that the wind which prevailed at the time diminished the proportion of ozone in the atmosphere, which, as was shown last year, affects directly the fatality of cholera. During the epidemic of 1884 some experiments were made at the Pharo Hospital, in which a certain ward was supplied with ozone artificially generated by an electrical machine. The result was favorable, but the experiment was not conclusive for the reason that the machine was small, and the quantity of ozone supplied was therefore insufficient. Similar changes of weather at Toulon have this year been followed by the same increased mortality, so that the ozone problem may be regarded as offering a field for valuable study.

A Scourge of Fevers.—At Marseilles, the exaggerated total death rate has been largely due to a continuance of the typhus and typhoid fevers, which have prevailed in some streets and precincts with alarming malignity.

At Sainte Marthe, a village which forms one of the northern suburbs of this city, there have been within a few days twenty deaths from typhoid fever among a population of less than 1400 people. The outbreak there is explained by the statement, that when the military camp at Pas des Lanciers, a few miles north of this city, was broken up in August by the fatal epidemics of fevers which compelled that resource, the blankets of the invalid soldiers were brought to Sainte Marthe and cleansed in a public "lavoir," where the linen of the entire village is washed. It is stated in defence of this extraordinary proceeding, that the bedding had been disinfected before being washed at Sainte Marthe, but the results seem to prove that the disinfection was not effective. Here again is a lesson to enforce: the importance of the rigid precaution in the treatment of textile materials coming from a district tainted with any contagious or infectious diseases. The commercial strictures which are so often seen and heard against the United States Government, for what is termed the needless severity of its regulations concerning the importation of rags from Mediterranean ports, betray a curious ignorance of this subject. When it is considered that, throughout almost the whole of Spain, and more than a hundred towns and villages of Southern France and Italy, cholera now exists or has existed during the present summer, that this disease, as well as typhus and typhoid fevers, is easily communicated by clothing and bedding, and that not only are the strictest regulations insufficient to prevent ignorant and avaricious people from concealing and selling the clothes and bedding of deceased relations, but that it is practically impossible in most cases to establish the exact origin of rags in the market of a large port like Marseilles; the importance of thorough disinfection of all rags from these countries must be admitted.

At Toulon, the cholera has been, as already reported, much more severe, relatively, than at Marseilles, though the course and type of the disease, its complications with typhus and typhoid fevers, and its increased fatality under certain cool, dry winds, have been exceedingly similar.

Of the 65,000 inhabitants of Toulon probably a third have left the city, and a large proportion of its shops and stores are closed.

Since the 27th of August the deaths from cholera among the diminished population have been, by days, as follows: 42, 27, 25, 15, 23, 9, 26, 23, 22, 16, 10, 11, 7. Total 256 choleraic deaths out of a total mortality of 331.

An incident worthy of record at Toulon, was the case of a gardener named Gherci, who, being at the hospital Bon Neucontre, in the final algid stage of cholera, cold, blue, and nearly pulseless, was left by the attendants as dying. Bottles of hot water had been packed around the sufferer in the hope of restoring his vital warmth, but in vain. The poor fellow, left to his own resources, managed to uncork and drink the contents of two of these bottles. This inward application of heat restored the vital current and his life was saved.

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The lesson of this summer has been a severe one, not only to Marseilles and Toulon, but to the whole of France, whose prosperity has been vitally injured by the recurring epidemic, which, as is now plainly seen, might and ought to have been prevented. The French government is now thoroughly aroused to this constant menace on its southern coast, and during the past week the Minister of the Interior, M. Allain Targé, has paid a visit to both the stricken cities, to see and report officially what needs to be done. The necessities of the case are sufficiently plain, and the official report of the Minister states with clear conciseness what is to be done.

At Marseilles: 1. To construct two large transverse sewers to receive and discharge the entire sewerage of the city in deep water outside the ports.

2. To demolish and rebuild that part of the city in rear of the Bourse, and to open wide streets through the old and densely built quarters.

At Toulon: 1. To build an entire sewer system, which shall discharge into the open sea.

2. To open wide streets through the eastern part of the city.

3. To rebuild the fortifications in the same quarter, and remove entirely the encircling wall which now excludes air and light; and

4. To provide a complete water supply.

These are serious and costly measures, far beyond the unaided power of either city to undertake. Toulon is a great naval and military station with little seaward commerce or local trade except what is incident to the Government service. Marseilles, with her vast commerce crippled by the quarantines of those two unfortunate years, and her resources exhausted by the costly works undertaken since 1850, her waterworks, sewers, and pavements, is similarly unable to meet alone the cost of what remains to be done.

The Suez Canal, which has done so much for international commerce, has at the same time put Marseilles into direct relations with the permanently infected parts of Southern Asia.

The French operations in Cochin-China, the constant stream of invalid soldiers returning in crowded ships from service in those pestilent climates, have done the same or worse for Toulon. Both cities are radically defective in sanitary construction, both are exposed to constant and extraordinary dangers from abroad.

It is now believed that the Government will help Marseilles and Toulon because it must. The loss to France through cholera in June, 1884, is counted by millions, and the thousands of lives that have been sacrificed emphasize the demand that these twin nurseries of pestilence, shall be cleansed and raised to a modern standard of sanitation.

Professorship of Surgery in Georgetown University, D. C.—At the time that Surgeon-General Hamilton, of the United States Marine-Hospital Service, handed his resignation to the President, he also resigned the Professorship of Surgery in the Medical Department of the Georgetown University, D. C. It was accepted with reluctance, and ex-Surgeon-General Philip S. Wales was finally appointed to the vacancy. When it was ascertained that the President would not accept the resignation of the Surgeon-General, Dr. Wales immediately tendered his resignation of the Professorship, and Dr. Hamilton was reëlected to the Chair, and has begun his lectures.

MONTREAL.

(*From our Special Correspondent.*)

Medico-Chirurgical Society.—The election of officers for 1885–86 took place at the annual meeting held on Friday, October 9, with the following result:

President.—Dr. T. G. Roddick (reëlected).

Vice Presidents.—Dr. I. C. Cameron, Dr. George Wilkins.

Treasurer.—Dr. Perrigo.

Secretary.—Dr. Gurd (reëlected).

At this meeting a resolution was passed endorsing previous resolutions passed from time to time by the Society regarding the great efficacy of vaccination as a protection against smallpox, and the necessity of revaccination in such times as the present, when smallpox is so prevalent.

Medical Schools.—Notwithstanding the smallpox, the medical schools have nearly as many students as in previous years. The McGill Medical School has a large entry of new men, and the classes are being held in the new building. The formal opening will take place on Thursday, October 22, when it is expected that several distinguished medical and lay men from a distance will deliver addresses. Professors Pepper and Osler, of Philadelphia, have promised to be present, and also Sir A. T. Galt and Sir Charles Tupper, M.D., K.C.M.G.

The Smallpox Epidemic.—At last the Provincial Board of Health has given orders to enforce the Compulsory Vaccination Act. The result has not been as brilliant as expected, for the local Board of Health has as yet done nothing to carry out the orders of the Central Board. There has certainly been some house-to-house visitations in the Western and English portions of the town, but this section had already been thoroughly vaccinated and revaccinated. I hear of no attempt being made by the health authorities to enforce the Compulsory Vaccination Act in the quarter of the city which needs it most, viz., St. Louis, St. James, and St. Mary's wards, occupied principally by French. The riots which took place here lately were merely a public manifestation of the feeling of the unvaccinated, and not the result of an attempt to enforce the Act. The East End Health Office which was wrecked has not yet been reopened. The opposition to vaccination among the French people is due, not only to social and religious prejudices, but to a large extent, I am sorry to say, to the bigotry and ignorance of many of the medical men, who, though publicly approving of vaccination, secretly denounce the practice as useless always and dangerous, especially in times when smallpox is epidemic. The medical men who act thus belong to a certain medical school in this city, which has a man occupying one of its most important chairs who for years has preached against vaccination, and who, like most anti-vaccinationists, is a fanatic on the subject.

The new smallpox hospital is now ready, and in it will be room for some five hundred more patients. The old hospital was much overcrowded, and could not take

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in half the people who applied for admission. Now every person affected with smallpox, who declines to go to hospital has his house quarantined. Persons are not allowed to enter or leave the house during the period it is infected. Manufacturers, companies, and firms employing a number of people, have enforced vaccination, not only on their employés, but their families. Any employé declining to have his family vaccinated is immediately dismissed; thus large numbers of people are vaccinated who could not be reached in any other way. In many large establishments the workmen (French) have left in a body; but, after a day or two of reflection, have returned and submitted themselves and their families to vaccination.

The number of deaths from smallpox last week was nearly 300. About 80 per cent. of these were children under 10, and 90 per cent., French Roman Catholics. Last month, in this city, 697 died from smallpox, and in the suburbs about 150; total, nearly 850.

MORE RESIGNATIONS FROM THE CONGRESS.—Dr. Henry F. Campbell, of Augusta, Georgia, has declined the Vice-Presidency of the Congress.

Dr. E. O. Shakespeare, of Philadelphia, has resigned the Presidency of the Section of Pathology.

Dr. Henry G. Beyer, U. S. N., and John J. Mason, of Newport, have declined to serve on the Council of the Section of Physiology. Dr. Jerome N. Kidder, of Washington, has declined to serve on the Council of the Section of Public and International Hygiene. Dr. J. M. Flint, U. S. N., on the Council of the Section of Practical and Experimental Therapeutics.

THE AMERICAN ACADEMY OF MEDICINE will hold its next annual session at New York, on October 28 and 29, 1885.

OBITUARY RECORD.—Died, of pulmonary consumption, at his home in Baltimore, on Wednesday, October 7th, RICHARD MCSHERRY, M.D., in the 68th year of his age.

Dr. McSherry was born in Martinsburg, Va., in 1817, graduated from the medical school of the University of Pennsylvania in 1841, entered the army and served under Taylor in the Seminole War. In 1843, he became an assistant surgeon in the U. S. Navy, and saw active service in the marine corps under Scott in the Mexican campaign. Resigning his commission, he came to Baltimore in 1851, and entered upon the practice of his profession. In 1862, he was called to the chair of Materia Medica and Therapeutics in the University of Maryland, and in 1865 was transferred to that of Practice of Medicine, a position which he filled until his death. He was one of the founders and the first President of the Baltimore Academy of Medicine, and President of the Medico-Chirurgical Faculty for the year 1883.

Dr. McSherry was a facile writer and contributed many articles to the medical press, and even at his advanced age devoted himself with assiduity to literary pursuits. Among his publications may be prominently mentioned his excellent manual of hygiene, entitled *Health, and How to Promote It*, and an interesting sketch of military and civil life in Mexico, called *El Puchero, or a Mixed Dish from Mexico.*

A man of irreproachable character and scholarly attainments, a dignified and courteous gentleman of the old school, a wise and conservative teacher and practitioner, a devoted husband and father, and a faithful friend, Dr. McSherry will be long remembered not only by the profession of his State, but also by the many friends in other walks of life whom he endeared to him by his genial manners and his guileless heart.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, FROM OCTOBER 6 TO OCTOBER 12, 1885.

ADAIR, GEO. W., *Captain and Assistant Surgeon.*—Leave of absence extended one month.—*S. O. 232, A. G. O.*, October 9, 1885.

WINSEL, DANIEL, *Captain and Assistant Surgeon.*—To be relieved from duty at Camp at Rock Springs, Wyoming Territory, and return to his proper station, Fort Fred. Steele, Wyoming Territory.—*S. O. 99, Department of the Platte*, October 1, 1885.

BIART, VICTOR, *Captain and Assistant Surgeon.*—Sick leave of absence further extended six months, on surgeon's certificate of disability.—*S. O. 227, A. G. O.*, October 3, 1885.

BUSHNELL, G. E., *First Lieutenant and Assistant Surgeon.*—Granted leave of absence for one month.—*S. O. 215, Department of the East*, October 6, 1885.

STEPHENSON, WM., *First Lieutenant and Assistant Surgeon.*—Relieved from duty at Fort Niobrara, Nebraska, and ordered for duty at Camp at Rock Springs, Wyoming Territory.—*S. O. 99, Department of the Platte*, October 1, 1885.

CHAPIN, A. R., *First Lieutenant and Assistant Surgeon.*—Leave of absence extended one month.—*S. O. 230, A. G. O.*, October 7, 1885.

MORRIS, EDWARD R., *First Lieutenant and Assistant Surgeon.*—(Recently appointed) ordered for duty in Department of Missouri.—*S. O. 233, A. G. O.*, October 10, 1885.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY DURING THE WEEK ENDING OCTOBER 10, 1885.

BRIGHT, GEORGE A., *Surgeon.*—To United States Steamer "Brooklyn."

FITTS, HENRY B., *Assistant Surgeon.*—To Naval Hospital, New York.

HALL, JOHN H., *Passed Assistant Surgeon.*—Detached from Naval Hospital, Mare Island, California, and ordered to the "Hartford."

SWAN, ROBERT, *Passed Assistant Surgeon.*—Detached from Naval Hospital, New York, and ordered to the "Brooklyn."

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE-HOSPITAL SERVICE, FOR THE WEEK ENDING OCTOBER 10, 1885.

BAILHACHE, P. H., *Surgeon.*—To proceed to Tuckerton, New Jersey, as Inspector, October 7, 1885.

AUSTIN, H. W., *Surgeon.*—To proceed to Albany, New York, on special duty, October 6, 1885.

GASSAWAY, J. M., *Surgeon.*—To examine surfmen at Ellsworth, Maine, and other ports of First District Life Saving Service, October 9, 1885.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

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ORIGINAL ARTICLES.

HERNIAL PROTRUSION OF THE MUCOUS MEMBRANE OF THE TYMPANIC CAVITY, THROUGH THE MEMBRANA TYMPANI, IN SOME CASES OF CHRONIC PURULENT OTITIS MEDIA.

BY CHARLES H. BURNETT, M.D.,
PROFESSOR OF OTOLOGY IN THE PHILADELPHIA POLYCLINIC, ETC.

SOMETIMES there may be observed a protrusion of the mucous membrane of the promontory, through a perforation of the membrana into the fundus of the external auditory canal, in cases of chronic purulent otitis media.

The chief interest and importance of these cases consist in the resemblance of the protrusion to granulation tissue, or to a small polypus, and the possible mistaking it for such formations. There are, however, some distinguishing features connected with the hernial formation which will enable the observer to make a correct diagnosis. The hernia of the mucous membrane is sensitive to the touch, forms suddenly, does not bleed easily upon being touched, but bleeds profusely if wounded, and yields quickly to the proper treatment, which, however, is quite different from that applicable to granulations or to polypi. The latter are not sensitive, bleed easily, as a rule, upon being touched, and are snared off or cauterized without pain. Granulations may be made to disappear by the application of powdered borax in cases where they are small, or by cauterants if larger. Hernia of the mucous membrane of the tympanic cavity is made worse by any endeavor to snare it off, or to cauterize it.

It closely resembles, in appearance, a polypus with a broad base, but can be properly treated in two ways only, first either by the application of powdered boric acid, or boric acid and alum in the proportion of ten grains of the latter to one ounce of the former, or by the instillation of absolute alcohol.

The discharge attending it is usually slight, and of a thick, purulent nature. There is no tendency to spontaneous bleeding from the protruding mucous membrane, though I have observed it exhibiting a tendency to recur at the menstrual epoch in women. It is also worthy of note that this affection of the tympanic mucous membrane has been observed by the writer only in women.

At present I have under observation a case of hernia of the tympanic mucous membrane in a lady 35 years old. It seems to have been consequent upon an acute process in the middle ear, from the entrance of sea water while bathing. The disease which followed, perforative inflammation of the middle ear, was neglected, and finally improperly treated for a year after its occurrence. The ear was then found to present the above described hernial protrusion of the mucous membrane of the middle ear, with a slight, purulent discharge, and the hearing was reduced to nearly nil. One or two applications of powdered boric acid, and calendula arrested the discharge, the hernia receded, and the edges of the perforation in the partition and upper part of the membrana became visible. The mucous membrane in the drum cavity became smooth and pale, and the hearing improved slightly. These appearances and conditions remained until a subsequent attack, when the hernia again reappeared. Subsequently, upon several occasions, sometimes upon the patient's taking cold, and again near the menstrual epoch, without any apparent cause, the ear, without pain, began to feel stopped, and in twenty-four hours from these symptoms, enough purulent matter was formed in the canal to block it from the fundus to the meatus, but not enough to run out. Upon removing this, the protrusion of the mucous membrane of the tympanic cavity was seen to have occurred through the perforation in the membrana. All the symptoms subsided upon the application of the above named treatment.

The attacks have finally become less frequent, of shorter duration, and the hearing has improved decidedly, so that words can be heard six or eight feet. Latterly alcohol instillations have been made in this case with marked and further benefit to the mucous membrane of the entire drum-cavity.

Upon an occasion, this patient, when absent from home, applied to another physician for relief from one of these attacks. He unfortunately was not acquainted with the nature of the case, mistook the hernia for a polypus and endeavored to snare it off. The operation was very painful, produced faintness and dizziness in the patient, the hemorrhage was considerable, and an otitis externa of several days' duration was thus set up. Nitrate of silver applications are also resented by these protrusions of the mucous membrane. Its application is also painful, while instillations of alcohol are not. I have seen only two or three such cases, but the peculiar liability to be mistaken for polypi or polypoid growths, as well as their resentful demeanor to the treatment applicable to true polypi or granulation, has induced me to record my experience with them.

THE GERM THEORY OF HEALTH.

BY EZRA M. HUNT, M.D.,
OF TRENTON, N. J.

WE have had good occasion for many years past to hear much of the germ theory of disease. So soon as the microscope confirmed the earlier observations of Boehm, Hallier, Mitchell, Cowdell, and others, it came to be recognized that the air teemed with life, either in animal or vegetable forms, and

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that human life depends very much upon its power to hold its way among the vast resources of being, either as helped by other life, as resisting or overcoming it, or as having capacity to adjust itself thereto. Even when it came to be known how much of this life is vegetable, it was hard to disabuse the mind of the animal idea, so that now many a tyro "germist" is looking most for animalculæ.

Harder still has it been to get rid of the idea that the germ theory or hypothesis is one of disease and has nothing to do with health. This is very natural, since most of the investigations have had as their point the finding out of the relations of microbes as causes of disease. Growth by fission, and growth by spores, were alike examined to see how the multiplication tended to evolve or to destroy animal life. Hence in our search for the evil genii we do not often remind ourselves

"that these organisms and their spores are found almost everywhere in nature in enormous numbers. . . . The surface of the animal body is covered with them, and in the mouth and parts of the alimentary canal they flourish in great luxuriance. All dust contains them, and the soil is the habitat of many forms of the greatest importance in the plan of nature. These organisms play a very important rôle in nature, and *without them vegetation, and with it animal life, would greatly diminish, if not entirely cease to exist.* . . . The microscopic fungi,or these lowest forms of plant life, are essential for the maintenance of all life." (Watson Cheyne, 1884.)

If there is any one thing demonstrable as to them, it is that they are intended to conserve the health and vitality of the higher forms of life. They reduce complex chemical substances to the simple forms in which they become available as foods. How this is done is illustrated in their relation to fermentation, and in other processes. Sometimes the work is completed by one form or species of life. In other cases these carry it only through certain stages, and other forms complete it. The laws of their growth and death; of the changes which they make in the soil, or in the host in which they grow or die; the changes which they themselves undergo, are so multifold and so minute that the student of this biology may well know that he is in a boundless museum of infinitesimal life, in which what he sees and what his enthusiasm may lead him to think he knows, has relations and modifications which, in order for absolute conclusions, almost require a minuteness of knowledge equally boundless. No wonder that we have different observations, and different inferences from observations by equally skilled observers. If is often a question as to any given microphyte, whether it is it or its secretion, or the changes it has wrought, that give trouble, and how much the soil or host is a factor in the special result.

The acquisition of specific properties by once harmless microphytes is not by any means inconceivable, and is not to be met by any off-hand analogy, such as that the egg of a goose never hatches a chicken. The attenuated and benign microphytes of Pasteur, obtained from malign ones, seem to furnish analogues to the experiments of Dr. Buchner, whom Virchow calls a good observer, and who, by various methods of culture, claims he can obtain a bacillus anthrax from a bacillus subtilis and vice versa. There is also much in the words of Dr. Sansom (1882) worth thinking about:

"I consider the differences of soil even of more importance than those of organisms in determining the nature of the specific diseases. I have long considered that there is a balance of probability in favor of the view that the specificities of disease are rather a matter of cultivation than of morphological distinctiveness."

Similar to this is the statement of Dr. Thorne, in his paper before the Epidemiological Society of London. Granting the relation of vegetable germs to specific diseases, he says:

"I know of no ground for refusing to believe that organisms capable of producing minor and incommunicable disease in particular stages of their growth, may, in other stages of their growth, or in the course of their subsequent (race) development, become capable of producing a major disease, communicable from person to person; the affair being essentially one of soil. This is *not at all a question of the development of a living organism out of matter independently of antecedent life; but merely the production by means of a process of evolution, of that which gives to an already existing organism that property by which it becomes infective.*"

We see enough of acquired habits and proclivities which change the nature, and enough of what happens to plants under varied conditions of culture, to teach us that there is wideness of range in the changes which may happen, which quite disturbs identification, and which in the yet new field of infinitesimal disease-producing botany may claim as distinct, microphytes originally of one family, and capable of reverting or of acquiring irrevertible type under certain conditions of culture or of host.

This is all the more true, since we have come to know of the marvellous history of some plant hybrids, and what great *fertility* they have.

This and much more that might be adduced in the same line of suggestion leads us to ask that the germ theory of health should now receive some consideration. If, as a working hypothesis, we start with the idea that the minute organisms were originally healthy, and helping forms of infinitesimal plant life meant to affect us only in a conservative way, we then come to inquire how they came to be changed in their qualities, and to take on specific and disease-producing qualities. Approaching the study from this direction, we seek to retrace the steps by which it became virulent, and to culture it back again to its original conservative benignity. We inquire what the host or soil it has found, has had to do with its abnormal and destructive changes, and maybe we can work on to modify the quality of soil, as well as the acquired constitution of the plant.

In such a study, perhaps, we come to find how it might be possible for cholera infantum, and for cholera, to grow into distinctness from diarrhœa; how diphtheria, derived from a series of aggravated throat distempers, should acquire a specificity of its own; how yellow fever may belong to bilious, remittent, or typhus; how typhus and typhoid were once one and the same disease; how Sydenham was not befogged when he thought scarlet fever and measles

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one; how rötheln can be claimed to be a kind of hybrid. Amid the varied forms of bacilli found in the intestines of a cholera victim, it is well if we are able to select out the "comma" as the one which is pathognomonic of the disease, or which may have been a result or a cause of the disease. But it will be still better if we can get its genealogy and know the line of its development from more benign sources, or the relation and the cause of the relation which *susceptible* persons bear to its development. So we could test the view of Dr. George Harley that a fungus which may have no toxic properties when grown on one soil, may acquire toxic properties, sufficient to be deleterious to animal life, when grown in another. The very same thing has been known as to certain fish in our own waters, not as an incident, but as a uniform fact.

It seems to us high time to begin to study germs as originally fitted to aid and preserve human life, so that we may study them, not only as causes of disease, but find the lines of their departure from the norm. So we will come, not only to know what form is characteristic of a disease, but come to know whence came the change which has been wrought. So, instead of secondary causes, we may come back to the primary causes and find how much soil, host, etc., had to do with the beginnings; how much of the evil is due to the food, or to the secretions of the plant, rather than to itself. With what we now know of the laws of evolution, and how all pervading they are, we shall never rest with the idea of inherent or natural and distinct specificity as in the beginning the vicious attribute of all these countless forms of minute life.

While the physician or biologist who practises only in the laboratory may be quite sure that original specificity explains everything, there are multitudes of very observing practitioners who believe that they have had cases where diphtheria, typhoid fever, etc., arose independent of a previous case of that exact disease.

When Dr. Milligan, in 1881, received replies on this point from fifty-eight active and able practitioners of England, twenty-four replied positively that they had treated cases both of typhoid fever and diphtheria, which they believed not to have been derived from cases of the same disease. The views of Murchison as to typhoid fever are to-day the views of a large proportion of the practising physicians whose names are not so often in print as those of specialists.

The fact that a great majority of these diseases are derived from an antecedent case does not prove that all are so derived. "I have no doubt," says Niemeyer, "that in the course of centuries new infections observed have developed and taken the place of others that formerly prevailed. There is no ground for asserting that a disease is either *only* miasmatic, or *only* contagious." The failures in the doctrine of absolute specificity were ably presented in the International Medical Congress of 1881, by Professor Hueter, of Griefswald. In looking over the best authorities among active practitioners of medicine, we are struck with the number who believe in cases of fevers, of diphtheria, of whooping cough, of scarlet fever, etc., not derived from a previous case of the very same disease. All that we claim is that the finding of a form of minute plant life invariably present in a certain disease does not prove that the disease arose from that plant. It may be a "spore," a hybrid, or evolution from some harmless microphyte, a peculiar soil or condition of host having developed it into virulence, and caused it to come to have the specific type of some well-known disease, which now in *most* cases is derived from an antecedent one; and it is as important a study as to how that infinitesimal plant life got out of health, as it is to know of its action after it has become a cause or concomitant of disease. Perhaps in the thousands of generations which they accomplish in a few weeks we may culture them back to mildness, as Pasteur is doing, and in addition so establish a benign nature as to make a germ theory of health as prominent before our minds as a germ theory of disease.

YERBA SANTA AND GRINDELIA ROBUSTA IN ACUTE BRONCHITIS.

By E. STUVER, M.D.,
of Rawlins, Wyoming Ter.

About four years ago, shortly after their introduction, and while treating a number of cases of bronchitis with very indifferent success by means of the old orthodox cough mixtures, I began using the above remedies. At first I used yerba santa alone, and obtained very satisfactory results. About that time the medical journals contained numerous reports of the singularly beneficent effects exerted by grindelia robusta in asthma, and it occurred to me that it would be a valuable addition to a cough mixture, especially when designed for the relief of the very annoying cough attending bronchitis, a cough which, while the person is up and moving about during the day causes almost no inconvenience, but as soon as the recumbent position is assumed, commences with greater or less severity and continues sometimes for hours, depriving the sufferer of much needed repose, and proving a source of annoyance both to patient and physician. Accordingly, I began using the following, viz:

℞.—Fl. ext. grindeliæ robustæ,
Fl. ext. yerbæ santæ, ... āā f℥j.
Syrupi tolutanæ vel. simplicis, q. s. ad f℥iij.—M.
Sig.—℥j to ℥ij every hour or two when needed for cough.

This combination gave very satisfactory results in the great majority of cases; indeed, in some instances it acted like a charm, instantly controlling the cough and relieving the tickling in the throat and bronchial tubes.

I have now used the preparation about four years in a large number of cases, and have obtained very gratifying results. In one instance I administered it to a medical friend, who was suffering from an attack of so-called "Mountain Fever," accompanied by bronchitis and harassing cough; and so prompt was the relief afforded, and so highly pleased was he with the effect of the remedy that he has used it almost exclusively as a cough mixture in his practice since that time.

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I have repeatedly used the preparation for cough and irritation of the bronchial tubes in my own case, and it always afforded prompt relief.

Many other cases might be cited with the same results, but enough has been said to indicate its field of usefulness. While I have not noticed so decided an amelioration of the cough due to chronic bronchitis or phthisis pulmonalis, as of that due to acute bronchitis, still in many cases considerable relief is obtained. I have now under treatment a lady about seventy years old, suffering from an aggravated chronic bronchitis, the symptoms of which were markedly alleviated by this preparation. Whether our high altitude (6730 feet above sea level), and light, dry atmosphere, have anything to do with the results obtained, I am unable to say; but if the preparation yields as good results in a lower altitude, and damper atmosphere as I have obtained from it here, it will confer a real benefit if used in properly selected cases.

The preparation is free from the unpleasant effects, such as headache, constipation, etc., which frequently follow the use of cough mixtures containing opiates. I have noticed no unpleasant effects following the use of small doses, but when large doses are administered temporary nausea may supervene. I have always used Parke, Davis & Co.'s fluid extracts.

HOSPITAL NOTES.

DISPENSARY FOR NERVOUS DISEASES, BALTIMORE.

Service of JOHN VAN BIBBER, M.D.

CLINICAL NOTES.

In view of the vast amount of valuable clinical material which is concentrated at the service of the Dispensary for Nervous Diseases, it is proposed to commence a series of clinical records, in which a practical account will be given of most instructive and interesting cases which come under observation. In the details of these cases I shall give the notes of my assistant, Mr. H. C. Ohle, and add to them whatever observation in regard to the progress and treatment of each case I may see fit.

The rapidly increasing literature of nervous diseases renders clinical observation especially valuable at this time. As far as is possible, importance and accuracy of detail will be in no respect neglected. But it must be remembered that many of the cases which present themselves for treatment at a clinic devoted exclusively to nervous diseases are in their origin obscure, and often ill-defined in their symptoms and progress. This class of cases may or may not be very interesting, and it will be my endeavor to select only those which are worthy of record.

It should also be remembered that the treatment of many diseases of the brain and spinal cord has heretofore been considered useless, impracticable, or merely tentative, and I look forward with great pleasure to being able to demonstrate that the efficiency of therapeutic means, in many of these conditions, has in the last few years been much enlarged and enriched. As a proof of this assertion, I have selected for the first case of this series a typical and marked one of saturnine paralysis, in which atrophy had progressed to a very decided extent in the extensor groups, and paresis was apparent in the arm and shoulder muscles. The prognosis in this case was doubtful, and after three months' treatment the result has been satisfactory and favorable in every particular. I submit the following account of the case from the notes of my assistant:

Lead Paralysis.

I. B., 38 years of age, presented himself for treatment at the dispensary March 30, 1885, suffering from paralysis of the extensor groups of muscles of both forearms.

The patient is a painter, this having been his occupation for nearly twenty-five years. He had enjoyed good health during all this time until about one year ago, when his appetite failed him, he became restless at night, lost strength, and, in his own words, "was very miserable." He stated that about six months previous to the time his health began to fail, he had little to do at his trade, and to curtail expenses he began grinding and mixing his own paints.

After this his health began to fail and his condition gradually grew worse. However, he continued at work. About the beginning of last October he noticed a slight weakness in the fingers of his right hand, followed by the same symptoms in fingers of the left hand. This weakness gradually increased, until there was complete paralysis of both forearms. This general condition grew worse and finally culminated in November in a severe attack of colic, which lasted about two weeks. He suffered severe pain during this time, and finally got relief by taking various purgatives. He has not had another attack since.

The patient had not done any work at his trade since November, being disabled by the paralysis. His general health improved again, but the paralysis grew more pronounced. He sleeps well, has a good appetite, and appears well nourished, with the exception of his arms.

On examination, I find that the extensor groups of muscles of both forearms are paralyzed and much atrophied. Temperature of extensor surface much reduced. No reaction on passing a strong faradic current. Same negative results with galvanic current.

Treatment.— Was ordered full doses of iodide of potassium, combined with ammonium carb.; and to promote circulation massage was ordered, and a stimulating liniment to rub well over the atrophied muscles, and to return daily to the institution for electrical treatment.

April 1.—Got slight reaction in affected muscles of left arm on applying faradic current, after use of galvanic current.

2d.—Got slight reaction in affected muscles of both arms on applying faradic current, after use of galvanic current.

4th.—Muscles of both arms contract more perceptibly under strong faradic current.

6th.—Applied Van Bibber's artificial extensor muscle to both arms, with instructions to wear apparatus as much as possible.

9th.—Decided improvement in both arms.

15th.—Was put on iodide of ammonium, tinct. gentian, and tinct. calumbæ.

17th.—Was put on spts. Mindererus and spts. nitric ether to promote perspiration. Noticed gradual improvement under continued use of battery.

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May 14.—Patient much improved; can hold hands out straight, and strength returning. Said he wrote a note last night.

June 30.—Patient says he will not return again, as he considers himself cured; has gone to work again.

Remarks.—This case presents a very instructive feature in the rapid recovery of the muscular fibres of the extensor groups after such decided atrophy had set in. During a comparatively short treatment the recovery was remarkable, for taking into consideration the bad import of entire absence of faradic reaction, and the existence of a grave toxic atrophy, the prognosis was very unfavorable; yet the result shows what can be accomplished by faithful and persistent treatment, which was carried out actively during each day, for during the interval between the manipulations, frictions, and electricity the patient wore the elastic apparatus to prevent the strained and injurious position which is always the result of this form of paralysis.

The following case is highly interesting both in regard to the localization of brain functions and to the well-known fact of the possible mutilation of that organ without a fatal result, or without corresponding suffering or disablement. I take from the notes of my assistant the following history:

Traumatic Hemiplegia (Left).

W. Y., twenty years of age, presented himself for treatment at the dispensary, on February 20, 1885, suffering from left hemiplegia. The following history of the case was obtained: On June 30, 1884, with suicidal intent, he shot himself in right temple, about one inch superior and half inch posterior to outer angle of eye. The bullet was discharged from a twenty-two calibre pistol, held close to the part entered. He was unconscious for about twenty-four hours. On recovering consciousness, it was found that he was paralyzed on left side, both upper and lower extremities. The hemiplegia was pronounced and complete.

He was attended by the family physican and after six weeks partial motion gradually returned to the paralyzed leg, so that he was able to move around with some assistance. In this respect the case followed the usual history of hemiplegia. On examination on the day he was entered for treatment, he presented the following symptoms, viz.: Left arm totally paralyzed with slight secondary contracture. Left leg partially recovered, but has not the same strength nor same motility as in the right leg, and the muscles are not so well developed. Right eye is suffused, slight ptosis, and on ophthalmoscopic examination optic nerve is found to be atrophied. Has constant buzzing in ear of right side, which condition has been present ever since he received the wound. He presents also another curious symptom, viz., whenever he gapes, the paralyzed arm in a lazy sort of manner rises to his head, this is uncontrollable. Patient claims that he has often made an effort to keep his arm from rising, but never succeeds unless he forcibly holds it with the other hand. His health is good, sight in left eye good, hearing good in both ears notwithstanding buzzing in right ear. Appetite good, sleeps well, intellect not impaired, no pain in head.

He was put on the following treatment, viz.: Internally he was given ammon. iodide, tinct. gentian, and tinct. calumbæ. He was told to return every alternate day and have faradic current passed through the paralyzed muscles.

This treatment was continued with benefit to patient: his left leg got stronger and more developed, his left arm has improved slightly and is much stronger, although still nearly useless. The right eye was kept under observation, but as it was found that trophic changes had already commenced in the cornea, he was sent to an oculist, who after a time decided that it must be enucleated, sending the following report: "Present condition of right eye: corneitis paralytica, exfoliation beginning in the centre. Atrophy (total) of the optic nerve. Paralysis nervorum abducentis et trochlearis, and also rami recti superioris and lavatoris palp. sup. (ptosis). The operation for extirpation was successfully done about the latter part of June. The orbit was found in good condition. Patient now wears an artificial eye. He is still under treatment."

Remarks.—The group of symptoms presented by this patient makes the direction and course of his injury a most interesting problem to solve, the more so from the fact that under certain circumstances surgical interference might do much to remove or improve his paralysis. The eye symptoms, involving the optic nerve, motor oculi, and the ophthalmic branch of fifth nerve of the right eye, and a slight condition of exophthalmos in left eye, would lead us to suppose that the ball has crossed directly from point of entrance and lodged somewhere contiguous to, or pressing upon the orbit of left eye. On the other hand, the passage of the bullet in this direction could not account for his paralysis, unless it was the result of hemorrhage or the pressure of some spicula of bone detached from the inner table of the skull. This pressure might reach the ascending frontal convolution, which is superior to the point of injury, and thus cause the paralysis. It is clearly impossible that the corpus striatum of the right side could have been involved in the injury, so we must look to the cortex or motor centres to explain the hemiplegia.

Taking into consideration the nature of the injury, the close proximity of the pistol to the skull at the time of shooting, and the probable course of the ball, it has been suggested to the patient to undergo a trephining operation over or adjacent to the spot where the ball entered. This operation would be done with the hope of relieving the hemiplegia, for it would enable us to see the condition of the inner table of the skull at the point of injury, and also the appearance of the membrane at that spot.

In the next series an account will be given of this operation, which will be performed at an early day.

MEDICAL PROGRESS.

The Treatment of Cholera.—The principal physician in charge of the Cholera Hospital at Barcelona assured the *Times* correspondent that he was able to save 95 per cent. of the cases brought under treatment before the algid period, but hardly 30 per cent. after it had fully developed. Most of the patients brought to the hospital were in a very dangerous condition; and of the deaths that occurred 75 per cent. had taken place within 24 hours of the arrival of the patient. With respect to the treatment, he found that, to produce the re-

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action, friction with rags steeped in ice water, followed by subcutaneous injections of ether, was most effective. To stop the diarrhœa doses of tannin and enemas of dilute perchloride of iron were useful; but most successful of all was the hypodermic administration of laudanum, which was thus retained in the system and checked the vomiting. To maintain the purity of the air, ozone was discharged in the dormitories, and all dejections instantaneously disinfected. — *Medical Times*, October 10, 1885.

The treatment which, according to *The Lancet*, has been most successful in the recent outbreak in Italy, has been large doses of laudanum given *coup sur coup* at the very first attack of diarrhœa, however slight.

THE PHYSIOLOGY OF THE INTESTINES.—PROFESSOR FUBINI AND DR. LUZZATI (*Moleschott's Utersuch.*, xiii. Bd., Heft 5), in a series of experimental contributions to the physiology of the intestines, have observed:

1. That in the small intestine of the dog there is on an average an hourly secretion of 10.6 gr. of *succus entericus*.

2. The average specific gravity of pure intestinal juice of the dog at a temperature of 24.8° F. is ordinarily 1010, and its reaction alkaline.

3. Intestinal movement, however produced, is plainly irregular and peristaltic.

4. The velocity of intestinal movement in the dog is about eleven inches per hour, the average length of the intestines being about 4.8 metres.

5. The bile in a marked degree favors the peristaltic movement of the intestine.

6. During sleep intestinal peristalsis is diminished but does not entirely cease.

7. High temperatures greatly favor intestinal peristalsis, while depression of temperature retards it.

8. The force of peristalsis in the intestine of a dog is sufficient to overcome a resistance of one hundred and twenty grains.

9. Stimulation of the right or left vagus in the neck produces no alteration in the velocity of the peristalsis of the intestine, whether produced by a weak, strong or intense induced current.

10. The mucous membrane of the intestinal tract, in which the fistula existed, during such stimulation is markedly injected.—*Lo Sperimentale*, August, 1885.

COCAINE IN THE TREATMENT OF THE OPIUM HABIT.—DRS. H. SMIDT and C. RANK report the trial of cocaine in the cure of the opium habit. In the three cases in which the remedy was used favorable results were obtained, and, without doubt, it aided in completing the cure.

In one case, by the use of the cocaine, cure, which previously had required twenty days for its accomplishment, was brought about in less than twelve days.

Maniacal exaltation was observed in one of the three cases, and was, without doubt, attributable to the drug. Concerning the efficacy of cocaine in the treatment of the opium habit, the conclusions are:

1. Cocaine, in the treatment of the opium habit, is a valuable remedy, modifying and abridging it, and while indispensable, is accompanied by no unfavorable results or sequelæ worthy of mention.

2. By the modified, slow withdrawal of the narcotic, as practised in the cases reported, decreasing doses of morphia and increasing doses of cocaine were administered.

3. Cocaine is best administered, hypodermatically, in a five per cent. aqueous solution.

4. A medium single dose, subject to increase, is five-sixths of a grain.

Doses of from one and a half grains to two grains can be administered without harm. Doses of more than three grains are dangerous.

5. So far as the present observations are concerned, the organism did not appear to become accustomed to the cocaine.—*Berliner klin. Wochenschr.*, September 14, 1885.

PERFORATING ULCER IN DIABETES.—Perforating ulcers of the foot have become associated with the protean tabes dorsalis. So far as we are aware, no observer has hitherto claimed any special association of perforating ulcer with diabetes. M. Laffon has put on record a case in which these two symptoms went together.[1] The patient was a man, aged sixty-one, who about the age of thirty-nine experienced, as the result of a shock, what he called a fever in his left foot accompanied by violent lightning pains. About a year later the big toe of the left foot became swollen, and the first and fourth toes gradually ulcerated. Later the other toes were attacked in the same fashion. Anæsthesia was present only for short distance around the ulcers. The right leg was attacked at times with painful cramps. The urine contained a large proportion of glucose. The disease of the toes was said to have some likeness to ainhum. If there were other symptoms of tabes dorsalis or of diabetes as a disease, no mention is made of them in Laffon's account.—*The Lancet*, Sept. 26, 1885.

THE TREATMENT OF CYSTALGIA IN WOMEN BY RAPID AND FORCED DILATATION OF THE URETHRA.—CHARLES MONOD, in a discussion of the treatment of cystalgia in women by rapid and forced dilatation of the urethra, classifies the various forms of the affection as:

1. Cystalgias due to lesion of the urethra (polypi and fissures).

2. Cystalgias symptomatic of a lesion of the bladder—inflammation, tumor, tubercle.

3. Cystalgias symptomatic of lesions in other organs, as those of the uterus and its annexa, or of the other pelvic viscera.

4. Cystalgias of nervous origin—*e.g.*, as symptomatic of locomotor ataxia.

5. Such manifestations of the affection as can be traced to no cause, and which may be considered as idiopathic.

The treatment of these various conditions by forced urethral dilatation is advocated—

1. In urethral affections dilatation is beneficial because exerting a beneficial influence upon the spasmodic and painful element of the disease, and also upon the lesion which has produced and maintains the cystalgia.

2. In cystalgia caused by neoplasms, dilatation, while affording temporary relief, can only be recommended as a means of diagnosis, preparatory to the ablation of the tumor.

[1] Journal de Médecine de Bordeaux, Sept. 13th.

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3. In the treatment of simple cystalgia, injections of boracic acid, nitrate of silver, and sedative preparations should be tried before resorting to surgical procedure.

When urination is persistently painful and frequent, forced dilatation, which frequently gives unexpected relief, should be tried before establishing a vesico-vaginal fistula. Observation shows that this method of treatment causes pain to disappear, and also improves the condition of the vesical mucous membrane, while it also permits the easier application of local remedies. In tubercular cystitis, dilatation may be practised as a final measure for the relief of pain.

4. In conditions designated as irritable bladder, forced dilatation is especially efficacious, whether the cystalgia depends upon fissure of the cervix uteri, disease of the uterus, vagina, rectum, or anus, or is, indeed, unassociated with any recognizable lesion.—*Annales des Maladies des Organes Génito-Urinaires*, May and June, 1885.

The Treatment of Cholera.—Prof. Peter, in the course of his remarks upon the treatment of cholera, recently, asserted that the first indication is to combat the irritation of the digestive apparatus and solar plexus, for which purpose he applies a large blister to the epigastrium; in plethoric individuals he would not hesitate, he says, to put half a dozen leeches on the pit of the stomach. The pain and the cramps he endeavors to subdue by the hypodermic administration of morphia. He also advises the use of the constant current, one pole being placed on the vertebral column and the other on the epigastrium. Owing to the difficulty that is often experienced in employing electricity, he recommends the use of Chapman's spinal ice-bags as likely to fulfil the same indication, as he mentioned last year at the École de Médecine; he has tried this treatment in twelve cases, of which only two proved fatal. Indeed, he seems then to have been even more enthusiastic in its favor than now, though he has had no fresh experience to cause him to modify his opinion. Here is what he then said on the subject: "From the first application there was a notable diminution of the vomiting, of the epigastric pain, and of the cramps. The patients became warm and the pulse perceptible. This modification of the epigastric pain is interesting, for the ice-bag is far from the epigastrium, but it exerts its influence by modifying the innervation of the great splanchnic nerves. In respect to the cramps the same thing occurs. To say that ice applied to the bodies of the sufferers, already algid (almost icy cold) warms them, is a paradox, and nevertheless is not less than the truth. In fact, by putting an end to the spasm of the bloodvessels the blood is allowed to circulate, and consequently the animal heat is generated afresh. In short, ice applied along the spine and the continuous current produce similar results; but the effects of the ice are more durable than those of electricity. This superiority is due to the prolonged application of the ice, whereas the continuous current was only applied during two or three hours each day.—*Medical Times*, September 26, 1885.

The Plurality and Diversity of Neoplasms in the Same Subject and in the same Family.—M. Ricord, at the suggestion of M. Verneuil, in an investigation of this subject, has undertaken to demonstrate that contrary to the views hitherto held tumors of diverse nature may exist in the same subject—either at the same time, or periods more or less distinct. In the first and second parts of his work, M. Ricord considers benign and malignant tumors respectively, and the coexistence at the same time—on the same subject—of different forms of each variety. In the third portion of his thesis, the author discusses the coexistence of malignant and benign neoplasms in the same subject, concerning which fact he brings forward incontestable evidence.

All varieties of benign tumors seem to be able to be combined with malignant growths. The frequency of myomata places them at the head of the series, followed by sebaceous cysts, lipomata, and, finally, by fibromata and adenomata; the author further shows the combination of benign and malignant tumors in the uterus alone, and in a second series of observations collects instances of benign tumors of one organ coexisting with malignant growths in another; *e. g.*, fibroma of the uterus and cancer of the liver; lipoma of the dorsal region, and cancer of the kidney; epithelioma of the rectum, and lipoma of a limb.

A series of observations finally is given, by which the possibility of the transformation *in situ* of a benign into a malignant growth, either by operation or spontaneously, is established.

M. Ricord further holds that having demonstrated a possible multiplicity of benign, as well as of malignant, tumors, these two diatheses, apparently so distinct in character and manifestations, should be united in a single diathesis—the *neoplastic*.—*Gazette Médicale de Paris*, September 19, 1885.

The Treatment of Tapeworm.—Dr. T. Spencer Cobbold publishes, in *The Lancet* of September 26, reports of additional cases of tapeworm, bringing his series up to two hundred cases. His additional experience fully confirms all that he has previously urged in favor of male fern remedies as compared with kousso, turpentine, pomegranate root, bark, and other drugs.

Experimental Researches upon the Physiological Pathology of the Thyroid Body in the Rabbit.—Dr. Guido Tissoni gives the following results of his experiments on the pathological physiology of the thyroid body in rabbits:

1. In the rabbit the epithelial elements of the spleen take part in the physiological increase of the organ, by active indirect scission.

2. The change of these elements diminishes progressively as the organ approaches complete development.

3. In the adult rabbit, the scission changes in the epithelial cells are entirely absent or very rare, though in this animal the thyroid belongs to a group of organs whose elements have the greatest stability.

4. Reaction of the thyroid body in the rabbit to mechanical or thermic stimuli, occurs but to a slight extent, at least if estimated by the small number of epithelial cells in which changes due to the irritation are present.

5. In the rabbit, as in the dog, the complete removal of one lobe of the thyroid produces neither alteration nor hypertrophy of the other lobe.

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6. The partial reproduction of this gland, though not frequent is possible, and the new formation of glandular tissue takes place perferably in the breadth, and more rarely in the length of the organ.

7. In such partial regeneration, the glandular development always occurs slowly and most frequently remains incomplete.

8. In this partial reproduction of the thyroid, it has been impossible to establish the precise method by which the glandular neo-formation is accomplished.

9. A total regeneration of the thyroid in the rabbit is possible, though verified still more rarely than the partial reproduction of the organ.

10. In total regeneration it has not been possible to determine in what parts the newly formed nodes are developed and whether they can arise from accessory thyroid organs, which on account of their diminutive size have escaped observation during operation.

11. The newly formed tissue, resulting in the partial as well as in the total reproduction of the organ, is identical histologically with that of the normal thyroid, except that in the former the glandular elements are separated by a greater quantity of connective tissue.—*Gazzetta degli Ospitali*, June 17, 1885.

OPISTHOPORIA.—This rare disease (ὀπισθε, backwards; πορεία, a going) has just been described more fully than heretofore by Dr. Mazzotti in his "Clinical and Necroscopic History of a Man who presented the phenomenon of going backwards." The man in question was sixty-six years of age, and for a year before he entered hospital was subject to giddiness. He was a hard drinker, and became so, as he said, because he "suffered from scorbutus." He got rid of his scorbutic affection, but shortly afterwards he found that instead of going forwards when he tried to walk he went backwards. On putting his feet to the ground he swayed somewhat from side to side, stretched his legs apart like one afraid of losing his balance and falling, and when exhorted to walk he moved, with great effort, stepping backwards. He was for five months in hospital, during which time he was often made to test his walking powers, but always with the result above stated. He ultimately died of ulcerous colitis, and on post-mortem examination the intracranial nerve-centres presented no other appearances than a slight degree of leptomeningitis and a highly atheromatous condition of the arteries at the base. Dr. Mazzotti's conclusion is that the phenomena presented by his patient during life were due to a simple disturbance of the endocerebral circle (*un semplice disturbo di circolo endocerebrale*), and he agrees with Nothnagel, that "to the clinical phenomenon of going backwards in walking no value can be attached as diagnostic of a localized cerebral lesion."—*The Lancet*, Sept. 26, 1885.

ANTIPYRIN.—At a late meeting of the Cambridge Medical Society, DR. MACALLISTER gave an account of the nature and uses of antipyrin, and in illustration of its valuable antipyretic properties showed the temperature charts of two patients recently treated in Addenbrooke's Hospital. Both suffered from phthisis, apparently limited to the apices of the lungs, and manifested by muco-purulent sputa, wasting, slight hæmoptysis, and the physical signs of consolidation and cavity. In one case, that of a man aged twenty-five, hectic fever made its appearance; the morning temperature was 98°, the evening 102°. Antipyrin in fifteen grain doses, administered twice in the course of the afternoon, promptly reduced the range of daily oscillation to 1°, about the normal temperature. An omission of the drug was followed by recurrence of the hectic; but again the temperature fell, and was maintained low by five grain doses given thrice a day. At the same time the patient became more comfortable and slept better; some tendency to sweating was checked by minim doses of solution of sulphate of atropia.

The other case, that of a woman aged forty-four, with still more urgent symptoms, and a temperature ranging from 98° to 103°, was treated in a similar way with equally good results. The relief and general sense of well-being produced by the medicine was a notable feature, and there was no untoward symptom. In neither patient was any rash or marked nausea produced, and both were in little more than a fortnight so much better that they were transferred to the out-patient department.

Dr. MacAllister thought that in many affections in which fever is a symptom it is sound practice to attempt to reduce the temperature for its own sake, just as we try to soothe pain when we can, irrespective for the moment of the fundamental disorder; antipyrin, of all the antipyretics he has tried, seems to be the most powerful with the fewest disadvantages. If experience justifies this conclusion, the drug may take its place beside morphia, being the allayer of fever as that is of pain.—*The Lancet*, October 10, 1885.

NEW TREATMENT OF PERIUTERINE HÆMATOCELE BY NEGATIVE GALVANO-PUNCTURE.—At the meeting of the Association Française pour l'Avancement des Sciences, held August 1, 1885, MM. APOSTOLI and DOLÉRIS presented a paper, read by the former, upon the electrical treatment of uterine hæmatocele by galvano-puncture. In an abstract of the paper forwarded to THE MEDICAL NEWS by the authors, their views are expressed as follows:

The action of the galvanic current is contemporaneously favorable with its application, the diffluent and non-retractile, soft eschar of the negative pole being utilized, and its effect being limited to the point of puncture made by the trocar. This method of puncture, therefore, primarily permits the opening without danger of a morbid collection, more or less deeply located, and places it, on the fall of the eschar, in communication with the external, which, when it occurs, forms a fistula which is more or less permanent, contracting adhesions with the pathological cavity and the exterior (the skin or mucous membrane).

This first action, which is limited and localized as desired, varies with the strength and duration of the current used. The production of an artificial fistula has the double advantage of permitting, in the first place, the natural elimination of the contents of the sac and of opening a passage of variable calibre through which topical and antiseptic treatment may be applied. It may also be added that the cicatrices left by the negative eschars are non-retractile, and only slightly visible.

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In addition to the first action, which is entirely surgical, a second and medical action results, entirely dynamic and trophic, and destined to modify the nutrition of the pathological collection (abscesses, cysts, etc.), and to produce a process of retrogression more or less rapid.

The general application of the continued current is tributary to this entirely medical application: when it is intended to cure muscular hypertrophy, to abort a commencing inflammation, to resolve a ganglionic hyperplasia, to produce the regression of a fibrous tumor, or one of the connective tissue, etc. In every case, though apparently different, the idea of intervention is identical; the current, the vehicle of chemical, mechanical, and dynamic action, will advantageously influence the nervous system, which regulates all nutritive changes, accomplishing this probably by multiplying the normal electrical currents which accompany all organic movement.

Under this conception, MM. Doléris and Apostoli introduced the electrical treatment of periuterine hæmatocele, and consider that this first step in therapeutic gynecology will soon be followed by others, and that perimetritis and chronic inflammation will be found amenable to the same treatment.

The following is a summary of the method to be pursued in the application of the current:

1. *Nature of the Intervention.*—This is ordinary puncture followed by the *chemical galvano-caustic* action, which should always be *negative*.

The effects of the basic, non-retractile eschar should be utilized, which, subsequent to a variable loss of substance incident thereto, will produce a fistula which will be maintained for several days.

2. *The Location of the Puncture.*—This should be, as far as possible, in the centre of the tumor, and the loss of substance be here produced, care being taken at the same time to avoid the uterus, the intestine, or any great vessel. Combined rectal and vaginal touch will reveal the situation of the respective organs, and the arterial pulsations will render apparent the seat of any great vessel which it is necessary to avoid.

3. *The Dose of the Operation.*—This should be as great as possible, the resulting fistula and eschar being directly proportionate to it. The ability to employ 100 milliampères is necessary and easily accomplished, inasmuch as the other pole (the positive in practice) is converted into an entirely negative pole, by the employment of potter's clay, which is soft and plastic, spread upon the surface of the electrode.

4. *The Duration of the Operation.*—This, like the dose or its intensity, should be regulated according to the loss of substance and the ulterior dynamic effect it is desired to produce; from five to six minutes will generally be a sufficiently long time for its application.

5. *The Time of Operation.*—This should be as early as possible, and every uterine hæmatocele as soon as diagnosticated should be punctured without delay, which in every case renders the prognosis more serious.

6. *The Number of Operations.*—A single galvano-puncture will generally suffice to obtain the desired therapeutic effect and the production of a sufficient fistula. If, by chance, the opening close too soon and the destruction of the sac is not complete, a second application of the current is permissible.

7. *The Technique of the Operation.*—The details of the operation which should be sedulously observed are the following: Any pile which will produce a sufficiently intense current, which should be estimated by a perfect galvanometer, is suitable for the operation. The Léclanché pile is the best of medico-electrical cells. The trocar should be of moderate size, and should penetrate to a depth of from $\frac{2}{3}$ to $\frac{4}{5}$ of an inch. The indifferent pole should be a large cake of potter's clay placed upon the abdomen or thigh of the patient. The vagina should be protected by a glass or caoutchouc muff surrounding the trocar almost to its point.

8. *Steps Consecutive to the Operation.*—Strict antisepsis should be practised during the operation. The trocar should be heated preparatory and subsequent to the operation, and strong carbolic injections should be made twice daily into the sac, preceded by cleansing and sponging if possible.

9. *Complications.*—Puncture interfering with a great vessel may give rise to serious hemorrhage, which should be controlled as rapidly as possible by the immediate introduction of, and forced dilatation with, Gemrig's speculum, maintained in position for a considerable time.

The authors of this valuable paper finally conclude:

1. That in this certain and safe method of treatment of uterine hæmatocele, the ordinary gravity of prognosis is much diminished, and a more rapid cure obtained.

2. That generally the tubular cauterization of Tripier (térébration galvano-caustique) has a twofold action, surgical and medical, as before explained.

Anodyne Mixture for Dyspepsia.—M. Germain Sée recommends:

℞.—Tr. hyoscyami,
Tr. conii . . . . . āā fʒijss.
Tr. gentiani . . . . . fʒjss.
Sp. anisi . . . . . gtt. x.—M.

S. Ten to thirty drops at each meal in painful dyspepsia and in cancer of the stomach.—*L'Union Médicale*, September 24, 1885.

Treatment of Infantile Eczema.—Tirera (*Revue Thérapeutique*, October 1, 1885) recommends the following preparation for the cure of infantile eczema:

℞.—Vaselini . . . . . ʒj.
Picis liquidæ,
Hydrarg. chlor. mit. . . āā ʒss.—M.

Apply two or three times daily until cure is effected, unless the remedy becomes too irritating, when its use should be suspended for a short time. When the eruption is situated upon the head, a valuable and convenient adjuvant to the treatment is a rubber cap.

Ligature of the Subclavian Artery for Axillary Aneurism.—Mr. Bennet May records, in *The Lancet*, for October 3d, a case in which the subclavian was ligated for spontaneous axillary aneurism of eight months' duration in a man of 61. Catgut was used. The patient died on the eighth day from exhaustion, from causes unconnected with the operation. The aneurism had undergone improvement, and it was be-

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lieved that the operation would have resulted in complete recovery had not death from extraneous causes ensued.

Mr. May has collected and analyzed 21 cases of axillary aneurism operated on since 1873; of these, fourteen were treated by ligature of the subclavian, of which number ten recovered, with cure of aneurism, which was of spontaneous origin, sacculated, and pulsating in all; one died of delirium tremens; one failed owing to the slipping of the catgut ligature; two failed from too free establishment of collateral circulation (both were cases of traumatic, pulseless aneurism, not suitable for ligature); amputation of the shoulder-joint was subsequently performed, with one recovery and one death. One case underwent spontaneous cure. Two cases were cured by digital pressure—both sacculated, pulsating aneurisms. One case died under galvano-puncture. Three cases were treated by the old (Syme's) operation, of which number one was cured (very small, spontaneous), one died of hemorrhage (very large, traumatic and diffuse), and one was cured (traumatic—no particulars).

The result brings out prominently the satisfactory character of treatment by ligature in appropriate cases. The previous high mortality must have been in a great degree accidental and separable from the operation; and the improvement, we may conclude, is unquestionably owing to better methods of wound treatment and materials of ligature. In fact, we may now fairly reconsider the subject from a new standpoint—viz., that of the antiseptic animal ligature—and conclude that for aneurisms of apparently spontaneous origin, which pulsate, which are encysted, or are not very widely diffused, there is no reason whatever for excluding the axillary artery from all the advantages of the Hunterian procedure.

It may be noted that compression of the artery above the clavicle has yielded good results, endorsing Mr, Holmes's recommendation that it should be the rule of practice in the first instance whenever practicable. With regard to other varieties, cases of recently ruptured artery, or of ruptured aneurism with diffusion, and with little or no pulsation, such evidence as there is in these cases is in favor of the accepted custom of treatment by the old (Syme's) method, with a reservation in favor of amputation if found impossible of completion.

EXTENSIVE CICATRICIAL STENOSIS OF THE VAGINA, DUE TO LONG RETENTION OF A FOREIGN BODY.—BREISKY (*Præger med. Wochenschr.*, 1885, No. 9) records an interesting case of cicatricial stenosis of the vagina of a young woman aged 28 years, who neither had given birth to children, nor aborted.

For seven years she had experienced severe abdominal pain during menstruation, and in the intervals between the menstrual periods an ill-smelling discharge was constant.

Examination revealed the fact that the vagina was a small blind sac. By rectal examination, a fluctuating tumor the size of an orange was discovered behind the uterus, containing a solid body having the shape of a spool. The patient now confessed what she hitherto concealed, that seven years previously she had introduced into her vagina a spool which she was unable to withdraw.

During menstruation entrance to the tumor was discovered with a filiform bougie, and without great difficulty the stricture dilated so as to permit the introduction of two fingers and the consequent removal of the foreign body, and complete recovery of the patient. —*Centralbl. für die med. Wissenschaften*, September 9, 1885.

THE COMBINED ACTION OF COCAINE AND ATROPINE IN IRITIS.—MR. WALTER H. JESSOP, in *The Lancet* for October 10th, recommends, in the treatment of iritis, the use of disks, each containing $\frac{1}{200}$ grain of cocaine hydrochlorate, and $\frac{1}{5000}$ grain of atropine.

He finds that they quickly cause great dilatation of the pupil, relief of pain, diminution of ciliary congestion, and decrease of intraocular tension when present. Now, in the active stages of iritis, as in inflammation of any other part, we have congestion of the vessels of the iris, and this gives rise to sluggishness, or even to contraction, of the pupil, followed often by posterior synechiæ. Therefore any treatment, to be successful, ought to be directed to relieving the iris of blood, and dilating the pupil as quickly as possible, so as to remove the papillary edge of the iris from the central portion of the capsule of the lens. The pain, which is such a prominent symptom of iritis, is, he believes, due either to the turgid state of the vessels, giving rise to tension of the iris, and so to pressure on its nerves, or to the tension of synechiæ. Considering the physiological action of the drugs employed, we find that atropine produces mydriasis by paralyzing the endings of the oculo-motor nerve and the unstriped muscular fibre of the iris, and, according to most observers, by stimulating also the dilating mechanism of the pupil. The action of atropine on the bloodvessels of the iris is apparently of little importance, as any constricting influence would be quickly followed by dilatation. Cocaine, as he showed in a paper before the Royal Society on June 18, 1885, acts by stimulating the ending of the mydriatic nerve of the eye, and also by constricting the small bloodvessels, thus producing a very large mydriasis, acting always to the movements of light and accommodation. Thus we see that neither drug produces alone all the effects necessary in the treatment of a case of iritis; but the combination of cocaine and atropine gives us all these—viz., an *ad maximum* dilatation of the pupil, constriction of the vessels of the iris, and inaction of the pupil to light and accommodation. The *ad maximum* dilatation of the pupil produced by this combination keeps the pupillary border of the iris away from the capsule of the lens, preventing adhesions, and also breaks down synechiæ when formed by stretching them, and by constricting their vascular supply literally starves them. From these facts doubtless ensued the excellent results of cocaine and atropine in the cases above enumerated; but Mr. Jessop would not, of course, suggest that this combination will have much effect in cases of old complete posterior synechiæ, but rather that we have in it a therapeutical remedy much more potent and certain in action in iritis than atropine. The rapid cessation of pain, which he has always seen follow the application of cocaine and atropine in iritis, enabled him to dispense with blisters and leeches in these cases.

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SATURDAY, OCTOBER 24, 1885.

ACUTE ENDOCARDITIS.

AT the Congress of German Naturalists and Physicians recently held at Strasburg, ORTH made a valuable contribution towards the solution of certain questions concerning the nature and etiology of acute endocarditis. Klebs, and others, regard all acute inflammatory processes of the endocardium as mycotic, or due to the presence of microörganisms, but certainly, in many cases of the simple warty or verrucose endocarditis, micrococci cannot be found, nor has Orth been able, by the culture method, to demonstrate their presence. The malignant or ulcerative form, on the other hand, is characterized by the constant presence of microörganisms in the vegetations and in the secondary embolic lesions, and the problems here to be decided relate to the character of the microbes, whether one or several forms, and to the mode in which they gain access to the body.

Heretofore, experimenters have not been able to produce ulcerative endocarditis, either by the injection of various forms of bacteria into the blood, or by the laceration of the valve segments, but by a modification of the procedure Orth has been successful. Rabbits bear very well the operation of lacerating the valves by means of a sound passed into the carotid, and, as shown by Rosenbach, endocarditis does not necessarily follow. But Orth has been able to induce a typical mycotic process by injecting microörganisms into a vein of the ear shortly after the operation, and the injured valves then show an acute inflammation with penetration of the organisms into the substance and a proliferation of cells about the necrotic regions, precisely similar to the ulcerative endocarditis of man. The organisms also attack any regions of the aorta touched by the sound in passing, and induce a mycotic endarteritis. This traumatic disposition is only transitory, for if the organisms are injected even two days after the injury to the valves, no invasion of the tissues takes place; the injection, also, of too small a quantity of the bacteria was found to be ineffectual. Four different forms of microörganisms were found capable of inducing the endocarditis, but three other species, including the micrococcus of pneumonia, were inert. Differences in the intensity of the local action, and in the number and extent of the metastases, were found to exist with different forms.

In the discussion which followed, KŒSTER urged his well-known views of the embolic origin of the valve lesions, but VIRCHOW, KLEBS, and RECKLINGSHAUSEN agreed with Orth, that the superficial and non-vascular portions of the valves were usually attacked first.

These interesting experiments throw considerable light upon the disease as it occurs in man. In the first place, malignant endocarditis is a process associated, in a great majority of cases, with other diseases, such as pyæmia, pneumonia, and rheumatism, in some of which at least microbes have been discovered. In the vegetations on the valves in different cases, the organisms have not always presented the same characters, but careful cultures will alone decide this point. In one instance Orth determined the species to be the golden staphylococcus pyogenes. Secondly, the remarkable differences in the local and general effects of the different microbes in Orth's experiments, remind us of similar differences in cases of human endocarditis, in some of which there is only the local valve affection without any metastatic foci, while in others every organ of the body presents suppurating embolic lesions. And lastly, the fact that to produce mycotic endocarditis in animals requires not simply the presence of the organisms in the blood, but the existence of a local lesion, is paralleled by the very great frequency with which, in man, the process attacks sclerotic valves; indeeed, it is exceptional to find perfectly normal segments affected. The endothelium of the healthy endocardium seems able to resist the invasion of the micrococci, or, at any rate, does not offer conditions favorable to their growth; while lodging on the diseased valves they find a suitable nidus, and penetrating the tissue, induce necrosis and loss of substance.

It is a curious circumstance, that Orth was not able with the micrococcus of pneumonia to induce the disease in rabbits with lacerated valves, for on the view that the special microbe of each disease induces the complicating endocarditis, this form may be regarded as responsible for the numerous instances of severe endocarditis occurring in pneumonia.

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OVARIAN HERNIA.

SIR SPENCER WELLS remarks, in his recent work upon *Abdominal Tumors*, that it is somewhat curious he has never in all his practice met with a case of hernia of the ovary. On the other hand, DR. EMERICH THOMAN has collected, in a paper published in a late number of the *Allgemeine Wiener medicinische Zeitung*, several cases of this accident, showing that it is more frequent than one would believe were he to take the experience of Sir Spencer Wells as his guide.

In Dr. Thoman's elaborate paper different varieties of hernia of the ovary are given, and examples of incarceration, of inflammation, and of cystic or malignant disease of the displaced organ are presented. Mulert, in 1867, reported two cases of primary ovarian hernia, in which the ovary alone furnished the contents of the hernial sac; he found but five similar cases reported. It thus seems that it is quite exceptional for the ovary, alone, to be found in a hernia; in most cases it has with it other organs, as the tube, the uterus, the vagina, the omentum, or a coil of intestine. It has been found that the majority of cases of ovarian hernia are congenital, and are usually associated with arrested development of the organ.

MULERT calls attention to the fact that hernia of the ovary may cause intestinal incarceration, because the entire border of the dislocated organ makes a strong band, and thus a pocket-like narrowed cavity between the uterus and the pelvic wall in which strangulation may occur; in such cases vomiting is present as in true ileus.

ENGLISCH has reported two cases of ovarian hernia, in one of which incarceration symptoms demanded herniotomy; he found both ovary and tube in the sac, to which they were strongly adherent; the sac, also, contained pus; extirpation of the ovary and tube was done, but the patient died on the thirteenth day from diffuse inflammation of the connective tissue. Englisch regards the prognosis of ovarian hernia as in most cases favorable, since strangulation rarely occurs, making herniotomy necessary.

He has added to his two cases thirty-six collected from professional literature, and of the thirty-eight thus tabulated, where the ovary alone, or the tube with it, made the contents of the hernia, twenty-seven were inguinal, nine femoral, one each through the obturator foramen, and the ischiadic. The hernia was upon both sides in nine cases, and in nine, also, the right side only, in five the left side. In most cases the disease was congenital, and in these both tube and ovary were involved in the hernia, but in the acquired cases only the ovary was included. In fifteen cases the ovary was normal, in seventeen inflamed, in five cystic, and in one cancerous. Most of the cases of inguinal hernia were congenital, while the other varieties were generally acquired.

PUECH, in 1878, collected 78 cases of ovarian hernia. Of these 47 were congenital, 12 doubtful, and 19 acquired. In later researches he collected 88 cases of inguinal hernia, 54 of which were congenital and 27 occupied both sides; he found the disorder more frequent upon the left than upon the right side. In 19 cases of herniotomy death occurred in 6.

Thoman quotes from the *Centralblatt für Gynäkologie*, No. 1, 1885, a case of incarcerated hernia in a patient two months pregnant. The woman was thirty-one years old, and was in her fourth pregnancy. Since childhood she had a tumor in the inguinal region, which at times was very painful. Urgent symptoms required an operation, and the diagnosis wavered between omental and ovarian hernia; upon opening the sac, which was the size of an egg, it was found to contain serum and the ovary, and the ovary was removed; the ovary was absent upon the other side; the patient recovered.

HEGAR and KALTENBACH state that in congenital inguinal hernia of the ovary, the latter seems firmly fixed by a rather large base to the posterior wall of the hernial sac, and it is irreducible. On the other hand, in acquired hernia, the ovary may be alone, separated from the tube, and it is generally mobile, suspended by its elongated ligament. The congenital form is often associated with other sexual anomalies, such as partial development of Müller's canals, hernia of one horn of a rudimentary uterus, or imperforate vagina.

They hold that if symptoms of incarceration, caused by inflammation of the ovary occur, it is better to remove the inflamed organ, instead of simply incising the sac. If this operation be done, great care must be taken in tying the pedicle, for this is in many cases quite short, the ligatures slip easily, and hence great liability to secondary hemorrhage. It is thought best not to let the stump enter the abdominal cavity, but to retain it in the inguinal canal.

REFORMS IN THE DISPOSAL OF REFUSE.

THE proper method of disposal of refuse matters is a question of ever-growing importance. Existing knowledge of the chief causes of diseases, as affecting masses of population, imputes to filth a most active agency in the development of influences which are hostile to life. The relation between local uncleanliness and many of the commoner ailments which afflict humanity has been so clearly shown to be one of cause and effect, that affections of such an origin are now not inaptly designated as *filth-diseases*. In order to reduce the quantity of preventable disease of this disgusting type, it is obviously the duty

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of sanitary authorities to enforce cleanliness to the full extent of their responsibilities and powers. The preliminary step in this procedure is the due removal of all refuse matters and the provision for the most complete innocuousness of such matters at the place of deposit. The manner in which the fulfilment of this important service has been attempted would be an interesting subject for inquiry.

It is not our purpose to go into the details of the methods of disposal at present employed. It is sufficient to state that American cities have thus far failed to introduce any material reforms in these practices, which are as unsatisfactory as they are antiquated. The refuse of a town in an untreated state, is not considered as having any considerable commercial value, and the object of the local government has been to get rid of it in the cheapest possible manner. Schemes of utilization have failed, because attempted on a purely money-making basis. The main consideration of the immense benefits which accrue to the public health by rendering harmless these noxious matters, even though at considerable cost to the municipality, and the minor consideration of the advantages of utilization in reducing the expense of disposal, do not appear to have been rightly understood. Hence, plans of utilization entered upon with a narrow conception of the primary object, have resulted in failure. A misappreciation of the true aim of the service and a restricted economy, are chiefly to be blamed for the present faulty practices, which reflect discredit upon our cities.

The expense which a perfect system of disposal necessitates is the great obstacle in the way of its adoption. The sanitary value, which should be taken into account as a valuable asset on the credit side, seems to have been lost sight of. The least expensive plan is, as a rule, the one selected, and, as a consequence, a thoroughly efficient service is never rendered. The usual practice is to collect the garbage, dust, and ashes from habitations and the sweepings from public places, and transport them to the environs of the town; but no satisfactory disposition is made of these materials at the place of final deposit.

The local authorities seldom take the refuse removal into their own hands, but entrust this work to contractors, who are a troublesome people at best, and whose work is never so satisfactory as that done by the authorities' own servants. The uncertainty of continued employment deters them from risking the capital required for the procurement of the necessary plant. Their object being solely one of profit, they are unwilling to engage in an enterprise which requires large capital, experience, and permanency, to make it successful. Hence, the authorities are alone competent to carry out schemes which require utilization or destruction of refuse upon a comprehensive scale.

With the contract system, as generally carried out, the disposal of refuse is left almost entirely to the discretion of the contractor. Under ordinary circumstances, waste animal and vegetable matters are utilized to some extent by feeding them to swine. This practice leads to the establishment of enclosures for these animals in the environs of towns, which become the centres from which the most nauseating and unhealthful odors are distributed over entire neighborhoods. Much of the garbage finds its way into the ash-bins before removal; and this heterogeneous mixture with the street sweepings is made use of to fill in sunken places, which, in time, become the sites upon which houses are built. Disposal, by dumping into the sea, has been practised in a few instances, but, unless the point selected is distant from the land, the shores become defiled by the collection of putrescible matters. The usual disposition of excreta upon truck lands in the outskirts of a town is open to serious objection. The manner of distribution of this material is frequently the cause of a nuisance injurious to the health of the locality.

As there is no commercial value in town refuse in its crude state, except for uses which contravene sanitary law, and as these substances cannot be permitted to be cast aside to rot and poison the air and soil by their respective effluvia and soakings, the question of final disposal becomes a most serious one for solution. Their destruction or complete transformation into harmless products is the object to be sought after. Cremation has been proposed as a feasible and satisfactory method of accomplishing this object. Experiments undertaken in this direction offer great inducements to their further prosecution. The trials made at Glasgow, Edinburgh, and lately at the village of Burnley on the Thames, and in other places in England, are reported as being entirely satisfactory and the methods employed merit a test on this side of the Atlantic. By the plan adopted at the refuse despatch works at Glasgow, each day's collections, composed of the contents of ash-bins, the street sweepings, excreta, garbage, and other refuse, are transported directly to the works outside of the town. Everything which can be sold or utilized is turned to the best advantage, and the remainder reduced to inoffensive clinkers by cremation. To carry out such a scheme successfully it is necessary for the authorities to construct and manage the works themselves. In large cities it would be advisable to have a number of stations conveniently located, in order to lessen the cost of transportation.

The subject is of so much importance to the public health and comfort as to demand a close investigation of the methods already adopted with such flattering results. A change in the present practices is everywhere urgently demanded, and if relief can be had

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from the nuisances for which they are responsible, the means of obtaining it should be employed without delay.

AN ALWAYS TIMELY WORD.

THE exigencies of practical teaching in our medical schools tend to hinder any marked attention to the individuality and common humanity of the patient. As a result, there is a rather wide-spread propensity on the part of students and junior practitioners, especially in hospitals, to look upon the patient in hand, not as a sentient and suffering fellow-creature, but as a more or less interesting incarnation of disease.

In the course of a recent address, PROF. OSLER made the following admirable plea for the recognition of the human element in *all* patients—a plea most opportunely addressed to an entering medical class:

"In your dealings with patients, public or private, there is but one law to regulate your conduct: 'Whatsoever ye would that men should do unto you, even so do unto them.' Kindliness of disposition and gentleness of manner are qualities essential in a practitioner. There is a tendency among young men about hospitals to study the cases, not the patients, and, in the interest which they take in the disease, to lose sight of the individual. Strive against this. Realize, so far as you can, that the mental state of the patient enters into his feelings, bear with his complaining, and scan gently his faults. The kindly word, the cheerful greeting, the sympathetic look, trivial as they may seem, help to brighten the paths of the poor sufferers, and are often as 'oil and wine' to the bruised spirits entrusted to our care."

REVIEWS.

THE TEN LAWS OF HEALTH, OR HOW DISEASES ARE PRODUCED AND PREVENTED, AND FAMILY GUIDE TO PROTECTION AGAINST EPIDEMIC DISEASES AND OTHER DANGEROUS INFECTIONS. By J. R. BLACK, M.D. 12mo. pp. 413. Baltimore, Md., 1885.

THE demand for this excellent little work has been so great that a second edition was exhausted some years since, and the present issue affords the seeker after health a revised and highly improved guide to the great *sine qua non* of all enjoyment. Dr. Black writes, in part, to obviate the complaints which are frequently made, that physicians do not endeavor to instruct their fellow-beings as they ought, in reference to the preservation of health. He offers his work with the noble purpose of contributing to the total eradication of disease, which he believes may hereafter become possible. Our author admits that man, although now more than ever monarch of the earth, is himself a poor, weak, sickly, suffering, short-lived creature; but contends that this lamentable state of human affairs is due to the fact, that for want of efforts in the right direction our race has hitherto displayed the immensity of its resources in making nature pliant to its will, but only the poverty of its resources in overcoming the causes of the numerous evils which torment its own body.

The volume is divided into two parts; the former of which comprises the ten sanitary commandments, with explanations, rules for their due observance, and detailed warnings as to the evil results of their violation. The second part is devoted to a consideration of the contagious, infectious, and pestilential diseases, with a preliminary account of the germ theory of disease, which is declared to be an accepted doctrine among physicians, the evidence in its favor being manifold and convincing. By the practical application of this theory, including the various recognized methods of destroying or shutting out the microbes of cholera, smallpox, scarlet fever, and so forth, as pointed out in the appropriate chapters, our author contends that these dreaded maladies may be prevented from spreading, in households and in neighborhoods, with great certainty.

The value of this useful volume would, in our opinion, be increased by a careful formulation of the Ten Laws of Health into definite ordinances, printed in bold type at the heads of the respective chapters, which now present somewhat the appearance of elaborate commentaries upon texts, which have themselves been inadvertently left out. Its otherwise handsome appearance is slightly marred by occasional infelicities of diction such as the following, which occurs in the preface on page 7: "The bedside of the very first cases of a deadly infection is then the only time, and the only place, to successfully arrest its spread." Still, the lessons taught by the writer, in his admirable comments upon the health laws, are rarely rendered imperfect by deficiency in clearness of expression; and notwithstanding a few verbal blemishes, the work is well calculated to accomplish a vast amount of good in the world.

SOCIETY PROCEEDINGS.

NEW YORK STATE MEDICAL ASSOCIATION.

FIFTH DISTRICT BRANCH.

First Annual Meeting, held at the Mansion House, Brooklyn, October 13, 1885.

THE PRESIDENT, JOSEPH C. HUTCHISON, M.D., IN THE CHAIR.

MORNING SESSION.

THE PRESIDENT made a brief address of welcome, in which he spoke of the prosperous condition of the Association and the good work already accomplished by it. Having appointed the nominating Committee, one from each county represented in the Fifth District Branch Association, whose duty it is to nominate the Executive Committee for the ensuing year, he called for the

REPORT OF THE EXECUTIVE COMMITTEE.

This was made by the Secretary, Dr. E. H. Squibb, of Brooklyn, and contained a number of recommendations, among which was one to the effect that a committee of three should be appointed by the Chair, to act

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with similar committees from each of the District Associations at the annual meeting of the parent Association in November, in formulating a general set of by-laws for all the five branches.

Another recommendation was, that the next special meeting of the Fifth District Branch should be held in Yonkers, Westchester County, on the second Tuesday in March, 1886; and both these recommendations were afterward acted favorably upon by the meeting.

Dr. Robert Newman, of New York, then read a paper on

THE PROGRESS OF ELECTROLYSIS IN SURGERY.

Having alluded to the paper which he read at the meeting of the American Medical Association in 1883, on "Electrolysis in Surgery; and Tabular Statistics of One Hundred Cases of Urethral Stricture treated by this Method." and afterward published in two parts, one in the *Journal of the American Medical Association*, and the other in the *New England Medical Monthly*, which contained a retrospect of the work accomplished in surgical electrolysis up to May, 1883, he stated that the object of the present paper was, to relate what had been accomplished in this field during the past two years.

The only absolutely new application of electrolysis that had been made during that time, appeared to be the adoption of the method in the treatment of hernia and hemorrhoids, by Dr. Craft, of Cleveland, Ohio, a member of the American Medical Association. The radical cure of hernia by means of electrolysis is new and original, and Dr. Craft's results had never before been published; the information concerning them having been received by Dr. Newman through private correspondence. In a letter to him dated May 7, 1885, Dr. Craft wrote as follows: "I have read with much interest your article on "Electrolysis in Surgery" and its special application to urethral strictures, and I can most heartily endorse all you say in its application to strictures, having given it considerable attention. I have been using electrolysis in two difficulties that you do not speak of, namely, hernia and hemorrhoids. I have applied a positive needle electrode, properly insulated, except at the point, subcutaneously, between the external and internal rings, and allowed a sufficient galvanic current to pass between the lobes to excite quite an adhesive inflammation, being careful not to injure the cord, and to keep the needle external to the peritoneum. This results in a cicatricial healing up of the inguinal canal, and in many cases seemingly permanent."

In a subsequent letter Dr. Craft wrote that in operating the hernia should be reduced first, and the sac carried up with it, if possible. The index-finger should be invaginated in the scrotum, keeping the cord and sac, if it remain in the ring, well pressed to one side, and held there beneath the invaginated finger, which should be pushed into, or through the external ring, if possible. Then with a sharp-pointed bistoury prick through the skin over the external ring. Through this puncture push a blunt-pointed needle electrode, insulated to within a quarter of an inch of the end, carrying it well up between the rings, by the side of the invaginated finger, which holds the cord and vessels from contact with the electrode. Connect the circuit of about ten cells of a good galvanic battery, continuing the current for about six to ten minutes, according to the sensibility of the patient, changing the point of the electrode from one side of the finger to the other, always keeping as clear of the cord as possible, and directing the current from the cord. The other electrode can be held by the patient in the hand of the side operated upon, or elsewhere, as is desirable. "You ask," he continued, "why I use the positive pole, instead of the negative. For the reason that the positive is not so painful as the negative, and, being the acid pole, I conceived that it would excite sufficient irritation and inflammation, and at the same time coagulate the blood in the small vessels, thereby creating a harder cicatricial or adhesive inflammation, than the negative or alkaline pole. I think the negative pole softens tissues, and will cause absorption of already formed cicatricial tissue; but in hernia we want a hard, adhesive inflammation excited, thereby effectually healing up the rings and canal. The more inflammation excited (so that it does not injure the cord or vessels, and falls short of suppuration), the more radical will be the effect. There is no foreign matter deposited, as is the case in subcutaneous injections, to form a nucleus for suppuration. The patient should lie in bed for at least two weeks, and then use a well-fitting truss for some time, until the part becomes strong and firm."

In the spring of 1884, while living in the State of Minnesota, Dr. Craft operated upon three cases of hernia. They were all of comparatively recent date, caused by straining, in lifting heavy weights or jumping from a height, and one of the common oblique type, through the external ring, although they had not descended into the scrotum. The patients are all Norwegians, and one of them returned to his native land about three months after the operation, at which time he was well, and had done ordinary work since his recovery, without any return of the trouble. The other two patients had no return of the hernia up to the end of six months, at which time Dr. Craft left the State.

Dr. Craft thus describes his method in the treatment of hemorrhoids: "In hemorrhoids I apply the positive needle also; yet in a few cases I have applied the negative, but do not get such decided cicatrizing and shrivelling up of the pile as with the positive. I select the particular pole according to the peculiarities of each individual case. If I want to absorb the pile, I insert the negative needle; but, if I desire to seal up the vessels by adhesive inflammation, I use the positive needle."

Dr. Newman then went on to speak of the successful application of electrolysis in port-wine marks, epilation, and uterine tumors. In regard to the practicability of the method in the treatment of the latter, he said there is a great diversity of opinion in the profession, and this is, no doubt, due to the fact that some such growths are amenable to electrolysis, while others are not. A variety of circumstances also always have to be taken into consideration, such as the general state of the patient and her intercurrent diseases, as well as the great difference among operators. Whoever knows the power of electrolysis, he said, will have confidence that uterine fibroids and other tumors can be cured by it. The reports from reliable observers on this point are such that the record must be accepted as true. He then referred to over one hundred cases of positive

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cure which had been reported by Drs. J. N. Freeman, of Brooklyn; J. T. Everett, of Clyde, Ohio; Ménière, of Paris; and Apostoli, of Paris. The clinical experience of the latter, extending over two years, upon more than one hundred cases, had shown that the treatment constantly reduced the size of the uterus, and completely restored the patient. In conclusion, Dr. Newman spoke of the application of electrolysis to strictures of the Eustachian tube and of the œsophagus.

DR. WILLIAM H. PANCOAST, of Philadelphia, who was present by invitation, said that he had had some experience with electrolysis in the treatment of urethral strictures, but had never been perfectly satisfied with its results. He inquired of Dr. Newman whether the positive pole really caused the absorption of tissue.

DR. NEWMAN replied that electrolysis acts in different ways, according to the method employed. Weak currents cause absorption, while strong ones destroy. His own experience had been different from that of Dr. Craft as regards the comparative painfulness of the application of the two poles. Contrary to the latter, he had found that the positive pole causes more pain, acting as an acid caustic, as it does, than the negative, which acts as an alkaline caustic. He agreed with Dr. Craft, however, as to the propriety of using the positive pole in hernia, where the object is to set up adhesive inflammation. The negative pole certainly causes absorption, and this is the one to be employed in the treatment of urethral stricture. This is the one, also, which has been so successfully used in stricture of the Eustachian tube and other strictures.

DR. ROCHESTER, of Brooklyn, was of the opinion that electrolysis is an exceedingly uncertain method of treating uterine fibroids. He had some cases which had been operated upon, and which, he was told, had been greatly relieved thereby; but he had found that the tumors are still present, and that the hemorrhage caused by them still continues, so that other measures are called for. He spoke particularly of one case of multiple fibroids, complicated by ovarian trouble, also, as he believed, which was operated on by the method of electrolysis in his presence. At the end of a week or ten days the treatment was repeated, and the operator stated that the growths were much reduced in size; but, for his own part, he could not appreciate any difference, and the same was true after a considerable number of séances. The patient, moreover, suffered great pain, and this, he thought, was probably due to localized peritonitis, induced by the application of electrolysis.

DR. GOVAN, of Stony Point, Rockland County, read the report of a

CASE OF RAILROAD ACCIDENT.

The patient was struck by a railway train, and when seen was found to be perfectly unconscious, and to have a fracture of the skull, with depression behind and above the left ear, which was caused by his head striking the ground. The patient remained unconscious for four days, and an operation for raising the depressed bone was just about to be undertaken, when it was ascertained that the bone had risen spontaneously to nearly its normal position. On the following day the depression had still further disappeared, and the patient was found to be conscious and able to speak. From this time he gradually recovered.

DR GOVAN also read the report of a

CASE OF ANILINE POISONING.

The accident was caused by the breaking of a carboy of aniline oil which the patient was engaged in removing, and he remained in a stertorous sleep for a number of hours, while there was complete anæsthesia of the entire cutaneous surface. Under the use of aconite and tonics, he gradually improved; but three days after the accident he complained of pain in the bladder, and a hemorrhage from the latter commenced which continued for two days, when it was finally checked by the use of a solution of tannic acid in tincture of uva ursi.

THE PRESIDENT asked whether Dr. Govan attributed the general anæsthesia in the last case to the effect of the oil. The anæsthetic effect of carbolic acid is well known; but it is probably not as generally known in the profession as it deserves to be, that this agent is one of the best possible applications that can be made in cases of burns. A few years ago, attention was directed to this use of carbolic acid by Dr. Squibb, and he had recently had the opportunity of testing the efficacy of the remedy in his own person. He had quite a severe burn of the finger, which destroyed the true cuticle in one part; but the pain was almost instantly relieved by dipping it in a solution of one drachm of impure carbolic acid (containing 96 per cent. of the acid) to the quart of warm water, as suggested by Dr. Squibb. He had also used it with very happy effect in the case of a little girl, in which the burns covered a very large portion of the surface of the body.

Dr. GOVAN remarked that the anæsthesia is undoubtedly due to the effect of the aniline oil, and that since he had met with this case he had used the oil very successfully for the purpose of producing local anæsthesia when laying open felons and performing other minor operations. There is absolutely no pain, even in cutting down to the bone, when the finger has first been dipped for a short time in the oil.

DR. C. S. WOOD, of New York, said that in New York at least carbolic acid had been very largely used in the treatment of burns ever since Dr. Squibb had called attention to the matter. He thought it probable that the anæsthesia in Dr. Govan's case had been caused by the oil, but that the comatose condition resulted from the inhalation of the vapor of naphtha arising from it.

DR. RUSHMORE, of Brooklyn, said that Dr. Govan's suggestion to use aniline oil when operating on felons was a most excellent one. There are other agents, such as ice and carbolic acid, which produce a sufficient amount of local anæsthesia, but the trouble with them is that their use is liable to be followed by considerable subsequent irritation.

DR. E. H. SQUIBB, of Brooklyn, remarked that the hemorrhage from the bladder in Dr. Govan's case seemed to indicate that the aniline oil was largely contaminated with carbolic acid or other byproducts of the coal-tar series, different ones of which were given off at different temperatures. It would be interesting, he thought, to note whether the peculiar effects produced in this case would result from poisoning by a specimen of perfectly pure aniline oil.

DR. PANCOAST said that generally, when local anæsthesia is resorted to, the patient suffers more or less

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pain from the operation, and he was gratified to learn from Dr. Govan that when aniline oil had been used for this purpose there is absolutely no pain experienced, during the cutting of a felon, for instance. In his own practice, he said, he is in the habit of combining Bonwill's method of inducing anæsthesia by means of rapid respiration with the inhalation of a few whiffs of chloroform. Bonwill's method is not sufficient of itself, and he could not but feel that the efficacy of this procedure is largely due to its moral effect upon the patient. One great advantage of the use of general anæsthetics over local is that they not only prevent all pain, but also remove the dread of suffering, which is often an important point.

AFTERNOON SESSION.

DR. A. FLINT, of New York, read a paper entitled

SUGGESTIONS IN REGARD TO THE CAUSATION AND TREATMENT OF ACUTE CORYZA.

Having briefly referred to the causation of acute coryza by the inhalation of gases, by powders, such as ipecacuanha, which are probably largely concerned in the production of hay-fever, by iodine, and by affections like measles, he said that it was to what is ordinarily known as a cold in the head, and the incipient stage of the affection known as influenza, that he now wished to call attention. The nostrils are first affected, constituting a rhinitis, and the fault may, perhaps, go no further; but, as a rule, it progresses to other adjacent parts, with the result of producing pharyngitis, laryngitis, or bronchitis. The use of the term catarrh, which is often employed both by the profession and the laity in speaking of coryza and the other affections named, is an antiquated error which should long ago have been given up.

The word cold, so generally in use, implies a change of conditions in which the temperature of the atmosphere is necessarily concerned; but it was his aim to show that it is highly probable that coryza does not result from any agency connected with the atmosphere, but from a specific microörganism. On what grounds is such a hypothesis based? In the first place, it is demonstrable that cold has very little to do with the causation of coryza. Among those who are especially exposed to sudden successions of high and low temperature it is rare; and the same is true as regards those who are exposed continuously for a long time to cold. In a large proportion of cases the affection can not be referred to any special exposure whatever, and experience thus furnishes very little support for the ordinarily accepted view.

As is well known, coryza often operates in a more or less general manner, more than one person being affected at a time; and this seems to indicate a specific cause. This is everywhere recognized as regards influenza, and as the latter is only a more intense manifestation of the same disorder, it is logical to infer that the same holds good in regard to ordinary colds. One fact which affords support to the parasitic hypothesis is, that in a cold the various parts of the respiratory tract are affected not simultaneously, but successively; a circumstance which is satisfactorily explained by the time it takes the microörganisms to multiply into colonies after obtaining a lodgement on the mucous membrane.

These, then, are some of the rational grounds for the probable parasitic origin of acute coryza. To establish the point with certainty it is necessary to demonstrate that a specific microörganism is always present in the affection, that it is never found in any other condition, and that it can be successfully cultivated outside of the body. It is highly desirable, therefore, that some of our competent microscopists should undertake the investigation of this subject in a thoroughly scientific manner.

In regard to the treatment of acute coryza, Dr. Flint remarked that if the existence of the parasite which he had assumed be a reality, the destruction of the latter by some suitable agent will, of course, instantly cut short an attack of the affection. This will be the general rule; in exceptional cases the parasiticide will hardly be required. He stated that he had consulted four of the latest works in which the subject of coryza is treated by authors of established reputation, viz., Cohen, Ingals, Robinson, and Bosworth, and that only one of the writers referred to the probable existence of a microörganism capable of producing the irritation of the nasal mucous membrane met with in a "cold in the head." This is Cohen, and he spoke of the parasite exclusively in connection with the subject of influenza; not referring to it at all as the possible cause of ordinary coryza. All these writers, however, favorably mention the use of topical remedies, either to excite or soothe the inflamed mucous membrane, or for antiphlogistic purposes. Dr. Flint then referred to the Brandt treatment by means of carbolic acid and ammonia inhaled from a sponge; but stated that its efficacy had not been attributed to the anti-parasitic action of the remedies employed.

He did not claim any originality, he said, in calling attention to the probable parasitic origin of acute coryza. Many years ago, Dr. J. K. Mitchell, the Moses of the modern school of etiology, who was only permitted from afar to view, but not to enter into the promised land of the scientific realization of his daring conceptions, had intimated that such was the fact in regard to this and other similar affections. Later, Sir Henry Holland, of London, and Mütter, of Vienna, had also entertained similar views.

The topical treatment so generally recommended, however, while it is not ostensibly employed for its parasiticide action will, he believed, be found in reality to derive its efficiency from its energy in this direction. Thus, among the agents so used are the permanganate of potash, salicylate of soda, the vapor of turpentine, and quinine and camphor in combination. Finally, having spoken of Helmholtz's quinine treatment of hay fever, Dr. Flint said that if a parasiticide be discovered which is constantly successful in cases of acute coryza, it will offer strong rational grounds for the correctness of the doctrine suggested.

DR. WYCKOFF, of Brooklyn, remarked that in his own cases he had derived very little benefit from Helmholtz's treatment, while he found that a great deal of irritation is caused by the insufflation of the quinine solution. The theory advanced by Dr. Flint seemed, however, to be plausible, and he trusted that the matter will be thoroughly tested by a series of laboratory investigations conducted by competent observers.

DR. E. F. BRUSH, of Mount Vernon, Westchester

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County, said that he remembered reading in a Virginia medical journal, he thought, a paper in which Dr. Cutter, of Boston, claimed to have discovered the true cause of influenza in a sort of polypoid, which was probably too large in size properly to come under the term bacteria. He also found that quinine killed it. This, he believed, was the first time that influenza was referred to such an origin. He is in the habit of employing ten parts of camphor to one part of quinine, and he has found that the camphor counteracts the irritating effect of the quinine. This combination often aborts an acute attack of influenza.

DR. PANCOAST said that he had made some experiments with the Helmholtz plan of treatment, and that he had been disappointed with the results obtained. He has found cubebs and camphor in combination very efficient; but the remedy which he prefers to all others is a mixture of the tincture of myrrh and borax. He asked Dr. Flint in what way the active antiphlogistic treatment, often used in colds, such as the production of free diaphoresis, etc., is efficient if the parasitic doctrine be true, and whether this efficiency can be made to tally with the latter.

DR. FLINT replied that he did not see any inconsistency in the matter. A full dose of opium, which is always part of the antiphlogistic treatment, is very efficient in breaking up a cold, just as it is very beneficial in the incipient stages of chlorea, where the parasitic origin of the disease can now be regarded as practically established. Whether the opium is directly destructive to the parasite or not, he was not prepared to say.

THE PRESIDENT remarked that the late Prof. Nathaniel Chapman, of Philadelphia, had always insisted on the special efficacy of old opium pills in acute colds, and he thought it probable that the reason why these are so useful is because in this form the effect of the opium is prolonged. In his own person he never failed to abort an attack of coryza with an old opium pill.

DR. W. MCCOLLOM, of Brooklyn, read the report of

AN OBSCURE CASE OF PULMONARY DISEASE.

The patient was a gentleman with the early history of specific disease, who had a large chest and voluminous lungs. A few months since he began to suffer from emotional excitability and from occasional paroxysms of dyspnœa. These asthmatic seizures were liable to be brought on by an unusual emotion or exercise, and as time went on they increased in frequency. A careful physical examination of the chest, however, did not detect any appreciable cardiac or pulmonary trouble. Afterward Dr. Sherwell, of Brooklyn, examined the larynx, but found no evidence whatever of any disease. He expressed the opinion that there was probably an aneurism of the arch of the aorta. Still later the patient was examined by Prof. A. Flint, who found only some subcrepitant râles on both sides of the chest. He believed that there was pulmonary œdema present, but could not say from what cause it proceeded.

In the meanwhile the dyspnœa was steadily progressive, and on the 24th of September last the patient took to bed. On the 25th he was examined by Dr. James R. Leaming, of New York, who thought that there were extensive pleuritic adhesions present, both old and new; an opinion in which he was confirmed by subsequent examinations. At this time the right lung did less work than the left, and the respiration altogether was largely abdominal.

Death occurred on the 5th of October, 1885, and an autopsy was made forty-eight hours after death.

The kidneys were entirely free from disease, and the liver, with the exception of possibly being a little fatty, was also normal. The pericardium contained two ounces of fluid, and the right ventricle of the heart was found to be moderately dilated. Otherwise the heart was perfectly healthy. The thoracic aorta was also free from disease. The lungs were of a dark gray or brown color, and were found to float in water. The parenchymatous structure of both lungs was very hard and dense, and creaked distinctly under the knife. There was no evidence of acute pneumonia, and no cavities were found. The only adhesions discovered were two slight ones at the top of the right lung, and they were evidently very old. (Specimens of the lungs were exhibited.)

DR. FLINT said that he remembered the case perfectly well, having made some notes himself upon it. He had not heard of the patient's death before, but he was very glad to know the result of the autopsy. When he made the examination of the chest in consultation with Dr. McCollom, he could discern nothing but the presence of a moist râle on both sides. He then felt quite sure that the patient had disease of the kidneys, and requested specimens of the urine. When, however, the examination of the latter gave a negative result, he felt at a loss in regard to the case, and asked to be allowed to see the patient again.

The condition of the lungs, found after death, completely explains the progressive dyspnœa, and at the same time it serves to illustrate the inadequacy of physical signs under certain circumstances. The remarkable point about this case is the equal development of the pulmonary cirrhosis on the two sides. Almost invariably the condition is much more marked in one lung than in the other; so that the difference between the two sides of the chest is very apparent. The existence of moist râles in connection with a normal condition of the heart seemed to him positively to indicate kidney disease, and he was therefore surprised to find that the urine gave no evidence of this. On the whole, therefore, he considered it a very interesting case, and the specimens that had been presented he believed were unique. He thought it also worth while, in this connection, to call attention to the mechanism of subcrepitant râles. One observer, as the history showed, had referred these râles in the present case to the presence of pleuritic adhesions. From the result of the autopsy, however, it was pretty evident that here the subcrepitant râles were produced in the smaller bronchial tubes, and not in the pleuræ.

THE PRESIDENT stated that some time since he had taken the liberty of inviting Prof. Pancoast to be present at the meeting, and that he would now call upon him to make some remarks on such topics as he might select.

DR. PANCOAST, having expressed the pleasure which it afforded him to be present on this occasion, said that he would be glad to speak on

SOME POINTS IN SURGICAL PRACTICE AND SURGICAL ANATOMY.

The first topic to which he referred was a system of

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surgical treatment which had proved of great value in his hands, to which he had given the name of

The Antiphlogistic Touch of the Therapeutic Knife.

If he sees a patient early enough, this enables him to say with almost absolute certainty that there will be no abscess. Having exhibited the little knives which he is in the habit of using, he stated that the special excellence which characterizes them is, that they leave no scar. By means of one of these the part is punctured in numerous places, and the dead blood let out. The method is applicable to tumors of almost any sort, as it affords the best possible means in deep-seated bloodletting of the part. The moment a bubo, or other gathering, becomes hard and refuses to yield to the action of local applications, he freely punctures it with his little knife, and occasionally he finds that there is a drop of pus on the point. By this method he has even cured some cases of goitre, both cystic and fibroid, or at least rendered the growth so small that it gave no further trouble. He also gives internal remedies, however, such as Donovan's solution and iodide of potassium, with the addition of cinchona or whiskey, if the patient's condition seems to demand it. Many other glandular growths can also be successfully treated in the same way.

The next point was one in connection with the surgical anatomy of the face, viz.:

The Special Value of the Malar Bone,

which is often overlooked by surgeons. It is one of the hardest bones in the whole skull, and it therefore serves as a great protection; while if it can be saved, much deformity of the face is prevented. In excision of the superior maxilla, consequently, he always makes it a point to leave this bone in position; and he then proceeded to describe the operation which he had devised for this purpose. This consisted in a double-curved incision; and, after turning back the soft parts, in inserting a chain-saw through the spheno-maxillary fissure, and so cutting through the articulation of the superior maxillary with the malar bone. In this connection he related the case of a lady with a rapidly growing carcinoma of the face, upon whom he performed this operation, notwithstanding the fact that she was five months pregnant. In ten days she had recovered from the operation, and she afterwards went on to full term without any further trouble. The value of the malar bone in protecting the brain from injury was well illustrated in the case of a boy, from whose face he extracted the breech-pin of a gun which had been embedded in it, without any one's knowledge, for eleven months. The gun had exploded in his hands, knocking the boy senseless, and the breech-pin had buried itself so completely in the tissues that it was not discovered by the physician who attended him. This case taught us that under such circumstances we should always examine carefully for powder in the skin, and also make sure that some part of the gun has not been embedded in the face. Although this would seem like a very extraordinary case, it was not unique; similar ones having been reported by the late Dr. John R. Barton, and by a surgeon to one of the ophthalmic hospitals.

DR. PANCOAST next made a report of his

Treatment of Varicocele,

which he said he has now successfully practised in over four hundred cases since the year 1856. It is very simple, and, therefore, in marked contrast to that so much in vogue in New York, and advocated particularly by Dr. Henry, which involves the cutting away of a portion of the scrotum. He did not think the latter a philosophical precedure, because it simply shortens the bag in which the enlarged veins are contained, and this can be more efficiently done by suspending them in a muslin bag, because the latter is indistensible, while the shortened scrotum, consisting of elastic tissues, gradually stretches more and more, so that the trouble eventually returns. This procedure does not, therefore, go to the root of the evil. Still more complicated and serious is the operation described by Mr. Lee, in the *Lancet* of April 18, 1885, in which he cuts open the scrotum and lifts out the veins of the spermatic cord. In both these operations there is no little danger of erysipelas setting in. In his own operation the patient is cured in three or four days, instead of as many weeks. It consists of transfixing the scrotum with a sail-maker's needle (which has a good point, but no sharp edges), and passing between the vas deferens and the veins a strong silk ligature, which, having been carried around the veins, is then brought out at the point of insertion. The ends of the ligature are then tightly secured over a button of German silver or zinc, and the veins being thus strangulated, the ulcerative process goes on rapidly. In

Stricture of the Urethra

he has never yet failed to get into the bladder with the instrument which he had modelled after that of Mr. Syme. After passing the filiform bougie through the staff, the latter is pushed up to the point of stricture, which is then cut superficially at a variety of points. The urethrotome is so constructed that the knife can be made to cut as deeply or as superficially as desired. Afterwards steady and progressive dilatation is to be regularly practised, and this, he insisted, is the only method of successfully treating stricture. Dr. Pancoast also exhibited and explained the modus operandi of a very light catheter bougie, with olive-shaped extremity, which he has devised.

He next spoke of

The Advantages of Sutures of Pure Black Silk,

and he said that he always keeps a variety of sizes on hand. The white silk commonly used is colored with lead, and is apt to be poisonous to the wound, but the black silk causes no suppuration. The sutures which he uses are antiseptic, being made of pure black silk which is dyed with iron. The latter circumstance, he thought, is of service in preventing erysipelas. The silk can be rendered more antiseptic by dipping it in carbolic acid or chloride of zinc, of which he has a very high opinion. It is the strongest ligature made, and at the same time the most delicate for plastic operations. He is also in the habit of using diachylon plaster made with black silk, and finds it extremely satisfactory.

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He then went on to speak of a point in surgical anatomy concerned in

Ununited Fractures of the Bones of the Leg and Forearm.

It is sometimes found that where one of the two bones in either part is broken, the fracture will not unite, notwithstanding the most skilful efforts on the part of the surgeon. The reason is, that the sound bone keeps the fragments of the broken one apart, and he has found that after fracturing this one also, there is generally no further trouble. In illustration of this point, he related a very interesting case of ununited fracture of the tibia, which was very aggravated and of very long standing, and in which the result, after he had fractured the fibula, to enable the fragments to come together, was quite remarkable.

The concluding portion of Dr. Pancoast's remarks was devoted to the consideration of *fracture of the neck of the femur in the aged* (in which he said he obtained excellent results by the use of a triple-inclined plane, the apparatus being modelled after the Charleston chair); of disease of the joints (in which he spoke of the advantages of rest); of an operation of his father's for incurvation of the penis, consisting of the removal of the V-shaped piece behind the glans, from the cavernous bodies; of the treatment of fistula in ano by the antiseptic ligature; of the subcutaneous incision of partially strangulated hernia; and of the desirability of treating chancres by the method of complete excision. He also exhibited specimens showing the results of exsections of the shoulder and of the hip, with the development of remarkable reparative processes.

On motion of Dr. Garrish, a vote of thanks was tendered Dr. Pancoast for his instructive address.

DR. J. W. S. GOULEY, of New York, discussed some of the points referred to by Dr. Pancoast. The method of punctures, for the control of inflammatory processes, he said, was a very old one. It began with acupuncture, and had been practised in various forms for the last eighty years. Thus, Velpeau used to make forty or fifty punctures sometimes in cases of orchitis. The principle is excellent; but there is nothing new about it. Having spoken of the operation of the late Dr. Charles E. Isaacs, for the removal of the superior maxilla by means of a heavy pair of forceps which he had devised, Dr. Gouley took up the subject of urethral stricture, and said that he was not in favor of multiple incisions. Only a scarification is possible, he thought, with the instrument which Dr. Pancoast had exhibited, and in his experience scarification had proved valueless. Instead of one, Dr. Pancoast left a number of cicatrices; but it was his opinion that the correct method of performing internal urethrotomy is to make one deep incision, so as to have but one cicatrix, and to make it in the floor of the urethra. This allows Nature to put in what he termed her splice of cicatricial tissue, and the operation of urethrotomy is only the beginning of the treatment of the stricture, since no stricture is cured by incision alone. This plasmatic material becomes slowly organized, and then dilatation is to be commenced. This is to be kept up not for months, but for years. As to metallic catheters, it is not once in five hundred times that he ever has any occasion to use one. If he does resort to a metallic instrument, however, he wants it very heavy, so that it will make its way into the bladder itself, and not of the light character of Dr. Pancoast's, with which he thought an inexperienced hand could do much harm. He objected to the olive-shaped extremity (which may be convenient in a soft instrument), on the ground that it is liable to make false routes, because it is three or four sizes smaller than the diameter of the shaft. Another objection to the instrument (which, however, is one that applies to a very large number of catheters) is that it has two eyes. One eye causes quite sufficient irritation, and there is no use whatever in having two. Finally, Dr. Gouley criticised Dr. Pancoast's operation for incurvation of the penis, and stated that he had performed with success an operation just the opposite of this, in which there was a longitudinal incision.

DR. GARRISH inquired whether cases of goitre were really cured by the simple method of small incisions; to which Dr. Pancoast replied that the goitre became reduced to such a size as to give no further trouble. In addition to the incisions and the internal treatment which he had mentioned, he is in the habit also of keeping up pressure by means of a rubber bandage. In reply to Dr. Gouley, he said that he did not mean to claim anything new in regard to the antiphlogistic touch, which, he was well aware, had been practised for a long time. He had, however, invented a knife by means of which the method could be employed to the best possible advantage, since it makes a suitable puncture, and nothing more. There is no incision and no scar, and the inflammation is satisfactorily relieved by it.

DR. NEWMAN said that the difference between Dr. Pancoast's method and others was, that his little knife produces no cut; and a cut, even with a sharp-pointed bistoury, will leave a scar. He had seen Dr. Pancoast use this knife in the case of delicate young ladies suffering from acne, and it left no scar or other after-effects, on account of its peculiar shape. In regard to varicocele, he had been successful in a number of cases with an appropriate truss; but it is exceedingly difficult to get an instrument maker to construct the appliance properly.

THE PRESIDENT said it was Sir Astley Cooper who first performed the operation of removing a portion of the scrotum in varicocele. Personally, he had been in the habit of resorting to the same procedure as Dr. Pancoast; but he had generally used iron wire instead of the silk ligature. It seemed to him now, however, that the latter is preferable, especially since the antiseptic properties of black silk have been shown, and in the future he will employ this. Occasionally he had known the iron wire to cause irritation, so that it had to be removed.

DR. PANCOAST then went on to reply to Dr. Gouley. In his urethrotome the knife is so arranged to cut just as deeply or superficially as the operator desires. For himself, he prefers a number of small cicatrices to one large one. He agreed with Dr. Gouley, that steady dilatation is absolutely essential for a cure, and that the cutting of the stricture is only the first stage in the process. In regard to his catheter-bougie, it is not true that the olive-shaped extremity pushes its way along the urethra. On the contrary, it has to be pushed in, and the main shaft of the instrument, which made its way along the urethra, always keeps its path in the

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centre of the canal. It serves a useful purpose in preventing the mucous membrane from puckering up. In speaking of incurvation of the penis, he claimed that Dr. Gouley was wrong in his anatomy, since the corpus spongiosum belongs to the glans.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, October 15, 1885.

THE PRESIDENT, A. JACOBI, M.D., IN THE CHAIR.

DR. A. B. JUDSON, Secretary, reported that the

SURGICAL SECTION

of the Academy had been reorganized at a meeting held on October 12, and that it had been decided to hold the regular meetings of the Section on the second Monday of each month. Dr. Stephen Smith was elected *Chairman* of the Section, and Dr. A. B. Judson, *Secretary*. A detailed report of the first meeting was presented. The President announced that a

SECTION ON OPHTHALMOLOGY AND OTOLOGY

would be formed during the coming week.

DR. F. A. CARTH, from the Board of Trustees, reported that $2000 had recently been paid, which constituted the final payment in liquidation of the original mortgage of $10,000 on the building, so that the Academy is now entirely

FREE FROM DEBT.

DR. STEPHEN SMITH read a paper on

THE COMPARATIVE RESULTS OF OPERATIONS IN BELLEVUE HOSPITAL.

There is probably no better place, he said, in which to test the progress of practical and operative surgery than the wards of this hospital, which has within its walls and immediate environments all the conditions that in modern times are regarded as unhealthful and unsanitary. It was built between the years of 1811 and 1816, on the made lands of a cove of the East River, without drainage or adequate sewerage, and without regard to ventilation; while before its occupation as a hospital it had been used both as a prison and an almshouse. Its wards had, from time to time, been crowded with patients suffering from typhus and typhoid fevers, smallpox, puerperal fever, cholera, and yellow fever, and although many changes had been made in its interior, yet the great and most serious defects of location and construction had remained unaltered, and might be regarded as permanent.

Bellevue can be regarded as a surgical hospital only since 1850, and during that period the amount of surgery in its wards has been gradually increasing. The surgeons of this institution have always ranked among the best in the city, and yet the practice of surgery has, within the period mentioned, undergone so complete a revolution that one of the older surgeons would scarcely realize that he was in the same hospital where he had practised a decade ago.

He would see with horror, said Dr. Smith, operations fearlessly performed that he had formerly regarded as without the pale of legitimate surgery. He would witness procedures in the after-treatment of operations which would seem to him to be fantastic, and even ludicrous. His astonishment would be extreme on finding that the first week passed without fever, and that no change in the dressing had been made. But, perhaps the most remarkable feature of modern practice would be the rapid convalescence and final complete recovery, without complication or exhaustion, of ordinary operations, which formerly gave so much trouble and anxiety.

To make more evident the change in practice, Dr. Smith proceeded to contrast in detail the several steps of operations in general, and of individual cases, the methods of treatment, and the results. Having mentioned that before the use of anæsthetics the most important general principle governing the operator was celerity, in order to limit as much as possible the amount of pain, he said that now one thought and purpose occupied the mind of the surgeon, and that is, recovery without suppuration. Instruments are not only protected from rust and all soiling and kept sharp, but long before the operation they are plâced in a carbolic solution, in order that any possible septic matter on them, or their handles, will be destroyed; and during the operation one assistant devotes himself entirely to the duty of handing the instruments to the operator, and of receiving them from him, and at once submerging them in the disinfectant fluid.

He first took up the performance of operations, such as amputations, for instance, describing the methods by which absolute cleanliness is now secured, in contrast to the former practice, when in the simple failure to secure ordinary cleanliness of the surface wounds were more frequently poisoned and induced to suppurate than from any other cause. In speaking of ligatures he said: Recognizing the silk ligature as an irritant, the surgeon always used to cut off but one end, and left the other depending from the wound, to be removed by traction when it had finally separated from the end of the vessel to which it had been applied. And well and faithfully did the ligature meet its indications, for during the first week, the most critical period in the history of the wound, it did not fail to induce free, and often profuse, suppuration. But now, not only does the surgeon freely apply the ligature, but he cuts off both ends, and closes the wound as completely as if there was no foreign substance left between its surfaces. No suppuration follows the presence of the ligatures, and union takes place as promptly as if no ligatures had been used.

Having referred to the past and present methods of closing wounds and of after-treatment, Dr. Smith went on to say that if we followed the wounds treated by these two methods from the first to the last dressings, the contrast was remarkable. If the wound was large, fever formerly began on the second or third day, announcing suppuration, and from this date, for weeks after, the dressings were changed daily, one, two, or three times. The pus-basin, the irrigator, and the dressing forceps were in constant demand, and in many wounds the suppuration was so profuse that vessels were placed under them which received the continuous discharge. The fever generally ran high, with consequent exhaustion and depression of the patient. Septicæmia, as now understood, was the intermediary fever of that day, and was regarded as a usual, if not a necessary, sequel of

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all considerable operations. Following this fever, or rather insidiously engrafted upon it, were chills, fever and profuse sweatings, now recognized as pyæmia, but then regarded as only another step of surgical fever. Few indeed survived this fever; and in the diffused or metastatic abscesses revealed at the autopsy the surgeon discovered a cause of death quite beyond his power to prevent, control, or even comprehend.

The vast change in the progress of operated cases during the past ten years could scarcely be realized. Surgical fever, with all its disastrous variations, is, in practice, rare now in Bellevue Hospital. Pus, as an outcome of surgical operations, is a thing of the past. On one occasion, Dr. Smith said, a teacher in one of the medical colleges sent to the wards of Bellevue for a specimen of pus for exhibition to his class; but none was found in the four surgical divisions of the hospital, although there was at that time an unusually large number of wounds and operated cases under active treatment. The wound is now dressed with no expectation that fever will arise, that suppuration will occur, or that the dressings will require renewal on account of the presence of pus. The patient sleeps and eats well from the first, and the surgeon often removes the dressing only to find the wound united; a condition of affairs which is true not only of incised wounds but equally of wounds of amputations, excision, ligature of arteries, etc.

Turning from this review of the several stages of operations in general to particular operations, he said that many curious illustrations of the remarkable progress of practical surgery in this hospital are to be found; in proof of which he cited the treatment of compound fractures, in which amputation is now never thought of unless arteries and nerves are so far destroyed that death of the extremity must follow amputations, excision of the larger joints, and ligation of large arteries. In speaking of amputations, he said that an interne once made the statement that "a recovery after amputation of thigh had not occurred in Bellevue Hospital since the time that the memory of man runneth not to the contrary," a remark which, although not strictly true, had a painful significance to the surgeons of that period.

If the major operations are now performed with so much success, Dr. Smith went on to say, it follows that the minor ones are correspondingly successful; a good instance of which is afforded in the improvement in the treatment of cold abscesses. Perhaps the most marked illustration of the great improvement in operating surgery, however, is to be found in the unvarying success which attends the treatment of simple fracture of the patella, by wiring together the fragments; a procedure which embodies the very spirit and genius of the surgery of to-day, viz.: Boldness and audacity in the conception of an operation, and conservatism the most absolute in the methods and means employed in executing it. This operation is now accepted as legitimate, and no procedure, so inherently dangerous when performed according to old methods, has ever proved more successful.

After briefly referring to the success attending gynecological operations in this hospital, Dr. Smith concluded in the following language: In reviewing the surgical practice at Bellevue, it is not difficult to determine the essential feature of the present methods as compared with those of the past. Cleanliness is the one great object sought to be obtained in all operations. Whatever may be the final conclusions of scientific students as to the cause of putrefaction of wounds, practically, it is determined that the surgeon may, with the most absolute certainty, protect an ordinary open wound from suppuration. To effect this object, he finds that he has simply to resort to those measures which are known to secure perfect cleanliness of the wound. The agents now relied upon and found efficient are: 1. Soap and water to external parts. 2. Carbolic solutions for the instruments. 3. Bichloride solutions to all surfaces and tissues. 4. Iodoform for external dressings. We may summarize the conditions regarded as essential to success as follows, viz.: A clean operator, clean assistants, a clean patient, clean instruments, and clean dressings.

DR. ALFRED C. POST said that he could cordially endorse the sentiments expressed by Dr. Smith, more especially in regard to the matter of thorough cleanliness. He thought there is still some room for question as to how far antiseptics, so-called, contribute to the admirable results which are now obtained in surgical practice. The great point he believed to be, perfect cleanliness, and the seclusion of the wound from malign influences from without. His doubt as to the value of antiseptics had its orgin in the reported experience of the renowned gynecological surgeons of Great Britain, such as Lawson Tait and Dr. Thomas Keith, who had discarded their use. They trust entirely to thorough cleanliness and had even expressed the opinion that antiseptics add slightly to the mortality of such operations as they are accustomed to perform. It is to be noticed, however, that these surgeons are always careful to have their sponges and ligatures treated with antiseptic solutions beforehand. Still, they do not cleanse their hands with antiseptics, and apply no antiseptic dressing after their operations. Personally, Dr. Post said, he is somewhat disposed to believe in the efficacy of antiseptics, but at the same time he felt a little staggered by the extraordinary success of the surgeons referred to, without them. The success of Spencer Wells, who still employs antiseptics, is not as great as that of Lawson Tait and Dr. Keith. But, at all events, whatever the name, the fact remains that the improvement in surgical practice has been very marked.

DR. W. GILL WYLIE stated that until three or four years ago ovariotomy was not performed at all in Bellevue Hospital, on account of the extreme mortality attending the operation there. When he was an interne in the hospital, in 1870, Listerism was just beginning to find its way there. It has, at all events, taught us the lesson of perfect cleanliness; and he thought it somewhat doubtful whether we should ever have learned this lesson had it not been for the labors of Mr. Lister. He differed from Dr. Post in believing that antiseptics are themselves beneficial, although their employment may have been carried to excess. It must not be forgotten that every one who employs coverings of cotton-wool, which is one of the best agents that we possess for protecting parts from deleterious influences, is, in fact, using a Lister dressing. Tait and Keith, on account of the extraordinary cleanliness which they practise, may not require antiseptics; but should their hands become contaminated in performing operations, or autopsies, he thought that they would not hesi-

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tate to use them on their own persons, as occasion demanded. For himself, he made use of antiseptics simply as a supplementary measure; and if he was certain that he could secure absolute cleanliness without their assistance he would not employ them either. But all surgeons engaged in active practice are liable to contamination, and therefore he thought is much safer not to dispense with antiseptics. Tait's recent statements in regard to these agents are simply an expression of the present reaction against them, and he thought they are likely to do much mischief in rendering surgeons careless, so that they will not adopt those measures of extreme cleanliness which are essential to the highest success in practice.

Dr. Wylie said, in conclusion, that when he came out of Bellvue, after his service as an interne in its wards, he was of the opinion that the whole place ought to be pulled down; but now, although there is certainly much to be desired about the arrangements of the building, he is convinced that, with the methods at present in vogue, the most excellent results can be obtained there. It is a great injustice to Lister to cry down antiseptics, as we never knew what cleanliness was until he taught us.

DR. F. V. WHITE said he would like to inquire of Dr. Smith whether he was accustomed to get bony or ligamentous union in treating fractures of the patella with the method and under the favorable circumstances which he had described.

DR. WESLEY M. CARPENTER remarked that the various points of Dr. Smith's paper had passed before his mind like a very pleasant panorama. He had begun to frequent the wards and dead-house of Bellevue about twelve years ago, and was perfectly familiar with the history so graphically related this evening. What struck him particularly, in looking back over three years, was the absence at the present day from the dead-house of the hospital of those grave internal lesions, such as surgical kidney, which used to be so common in those dying in the surgical wards. There was certainly a remarkable and most gratifying change in this respect, and, so far as he was able to recollect, he had not seen a case of surgical kidney there for five or six years. Such pathological conditions are now virtually a thing of the past. Again, in former times autopsies in cases in which death resulted from surgical operations were very frequent; but this is no longer the case, and all these happy results have, as all know, followed upon the adoption of what is known as antiseptic surgery.

DR. SMITH, in closing the discussion, remarked that he did not intend in his paper to discuss antiseptics or any theories respecting them. It is his own impression, however, that the improvement in surgical practice which he had described are due simply to the securing of extreme cleanliness. In the first place, the condition of the surgeon, the assistants, the nurses, the instruments, etc., is carefully looked after. Especially is attention paid to the nails, which were formerly one of the most frequent sources of contamination. In the second place, the parts are always washed until they are thoroughly clean; and not only the parts in the immediate vicinity of the wound or operation, but, in fact, the entire person of the patient. The share that can be claimed for mere antiseptics in the good results noted is probably very slight; but, at the same time, they serve a most excellent purpose in stimulating us to the carrying out of these measures of perfect cleanliness. Those, therefore, who are now ridiculing antiseptics he believed to be doing great mischief. Mr. Tait had made the statement that carbolic acid never comes near his patients; but he had met with a patient of that surgeon's who had informed him that in his actual practice he does not discard antiseptics so completely as he would have us believe, and that the minutest care is always observed in regard to his ligatures, sponges, instruments, etc. If, however, the present cry be kept up against antiseptics, great carelessness is sure to ensue, especially on the part of those who have always been opposed to their use, and, in consequence, very bad results will once more be seen in surgical practice.

In reply to Dr. White's question, Dr. Smith said that he did not know whether bony union is secured in fracture of the patella or not. The results are very satisfactory, however, and so he thought that there must be either bony union, or else extremely firm fibrous union.

A TRIENNIAL PRIZE IN MEMORY OF THE LATE DR. ERNST KRACKOWIZER.

THE SECRETARY read the following communication:

NEW YORK, October 14, 1885.

To the Academy of Medicine.

12 West Thirty-first Street, New York:

At a meeting of physicians and laymen, friends of the late Dr. Ernst Krackowizer, who died September 23, 1875, held October 13, 1885, the following preamble and resolutions were unanimously adopted:

Whereas, During his long activity in New York City, Dr. Ernst Krackowizer rendered eminent services to both the city and the medical profession; and,

Whereas, It is both desirable and proper to preserve the memory of this great man in the history of the city and the medical profession; and,

Whereas, Dr. Ernst Krackowizer was, during all his professional life, a zealous and self-sacrificing Fellow of the New York Academy of Medicine, which never had a more enlightened, learned, and generous friend than he; therefore be it

Resolved, That the sum of eleven hundred and fifty-five dollars be transferred to the New York Academy of Medicine, upon the following conditions:

First. That the accumulated interest of the above sum be utilized, every three years, as a prize for a good, or the best, paper, essay, or book, on a medical topic.

Second. That the above sum be forever registered and carried on the returns of the property of the New York Academy of Medicine as the "Ernst Krackowizer Prize Fund;" and,

Third. That at the proper times the prize questions, essays, or books, and rewards, be published in the principal medical journals of the United States.

Resolved, Further, that it shall be left to the wisdom of the Council of the Academy of Medicine to determine whether the prize is to be awarded as a recognition of either the best literary medical production of America during the previous three years, or of the most satisfactory solution of a question or problem proposed for competition.

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Resolved, Finally, that the President and Corresponding Secretary of the New York Academy of Medicine, and the Presidents of the College of Physicians and Surgeons, the University Medical College, and the Bellevue Hospital Medical College, officiating at the time of the several awards, shall constitute the Prize Committee, unless the Academy of Medicine, or its Council, decide differently.

On motion, the gift was accepted, and the matter referred to the Council of the Academy with power.

CHICAGO GYNECOLOGICAL SOCIETY.

Stated Meeting, September 18, 1885.

THE PRESIDENT, H. P. MERRIMAN, M.D., IN THE CHAIR.

DR. E. C. DUDLEY made some informal remarks relative to his observations in

GYNECOLOGICAL AND ABDOMINAL SURGERY IN EUROPE

during a summer holiday. His observations were confined to the work of a few operators in England, Scotland, and Heidelberg.

In Heidelberg, he called upon Professor Kehrer, and inspected the hospital and saw evidence of considerable work in abdominal surgery. Professor Kehrer's laboratory gave evidence of active research into gynecological bacteriology. His work bore the stamp of thoroughness and efficiency.

Dr. Dudley saw Dr. Bantock operate at the Samaritan Hospital London. The first operation was the removal of a small, solid ovarian tumor. The remaining ovary and tube, although normal, were removed on account of a small intramural, uterine fibroid. The striking feature of the operation was great rapidity without haste. Dr. Bantock caught up the edges of the peritoneum with small compression forceps, so that these edges were drawn up toward the cutaneous edges, and were held in this position by the weight of the instrument against the abdominal surface. This manœuvre greatly facilitated the passage of the sutures. The pedicle was secured by means of silk ligatures, applied in the operator's peculiar figure-of-eight turns. In closing the wound, a needle of ovoid shape, curved on the edge, instead of on the flat, was employed. This needle combines the maximum of strength with the minimum of size. Two or three sutures were passed through at each angle of the wound. Their ends were joined by knots. An assistant, passing the index-finger of each hand through the loops thus formed, made traction at each angle of the wound, in such a manner as to draw its sides into contact, and to lift the peritoneal edges nearer to the surface. The introduction of the remaining sutures was in this manner greatly facilitated. The sutures were so closely passed that no superficial stitches were required. They were made to include a very narrow margin of skin and peritoneum, and very little if any muscular tissue. Fine silkworm gut was employed.

The ends of the sutures, on each side of the wound, were now grasped in lock forceps, which prevented them from being drawn out, or becoming tangled during the separation of the wound from the toilet of the peritoneum, which was most thorough, the entire cavity being rendered perfectly clean and dry. The lock forceps were then removed from the ends of the sutures, and the hands of the assistant substituted. Traction was then made on all the sutures, in the direction of the upper angle of the wound. and they were tied in order from below upward and cut short. This prevents tangling of the threads and otherwise facilitates tying. Antiseptics, throughout the operation, were conspicuous by their absence. The dressings were of the most simple character.

Dr. Dudley then visited Birmingham, and saw Mr. Lawson Tait operate.

His rapid method of operating conveys to the casual observer the idea of haste and almost of carelessness. But closer observation very soon shows him to be one of those rare operators in whom dexterity amounts almost to a sleight of hand. An ovariotomy, in his hands, does not impress the observer as a capital operation. It seems almost as trivial as opening an abscess. His methods of operating do not materially differ from those of Dr. Bantock. In closing the wound he used but one needle, threaded with a piece of long silk, introducing this as if for a continuous suture, but did not draw the thread tight. After the introduction of the needle, he left a long loop before the reintroduction. Then, after taking the last stitch, he lifted the free loops of silk on the index-finger, and severed them with the scissors, thereby converting the continuous into an interrupted suture. These were tied in the ordinary way, and the wound was dressed in a manner which would be eminently acceptable to his most bitter antiseptic enemy.

During a brief visit in Edinburgh, Dr. Dudley saw Dr. Skene Keith perform his forty-eighth ovariotomy. Up to this time, he had lost only one or two patients. His operation presented some interesting peculiarities. He used probe-pointed scissors of a peculiar pattern, instead of the director, in going down through the deeper layers of the abdominal walls. By pressing firmly against the adhesions with a sponge, at the point of their attachment to the cyst, he literally sponged them away from the tumor. It was surprising to note the facility with which rather firm adhesions were thus broken. It is much easier to tear them from the tumor with the sponge than to tear the tumor from the adhesions. The breaking of the adhesions in this way is also much more gentle, and, in the opinion of Dr. Keith, diminishes the danger of shock. The adhesions were ligatured with fine catgut as fast as they were divided. In passing the ligatures a forceps, similar to the ordinary compression forceps, was used. This instrument had blades more than an inch long, of very small diameter, terminating in sharp points, so sharp that when the blades were closed they could be thrust through any soft tissue like a large needle. Grasping the ligature in the point of these blades, the tissue to be ligatured was transfixed. The ligature was then pulled through and the forceps withdrawn. The pedicle was transfixed and ligatured, with fine silk, in the same way.

The cautery, to which much of the elder Keith's success has been attributed, was not employed in this case, because the pedicle was very slender. The reason why the cautery, in the hands of other operators, has not proved a more perfect protection against hemorrhage, becomes apparent to any one who has witnessed its ap-

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plication in the hands of Dr. Keith. The whole secret of his method is, first, in the powerful compression of the pedicle between the broad blades of a heavy Baker-Brown clamp; second in the prolonged application of the red-hot cautery iron, not only to the pedicle, but, after this has been burned to the level of the clamp, also to the clamp itself. In this way the clamp becomes so hot that the included portion of the pedicle is slowly and thoroughly cooked, so that when the instrument is removed the end of the pedicle is thin and translucent, resembling a horny substance. Such a pedicle, in the experience of Dr. Keith, never gives trouble from oozing.

The wound was closed with fine silk sutures which had been boiled. Ten or fifteen pieces of silk were threaded at each end with very fine, well-tempered needles nearly three inches long, which were introduced on either side from within outward. Very small margins of peritoneum and skin were included in the sutures. Dr. Keith thought it a very common fault among operators to draw the stitches too tight in tying. The long fine needle used in closing the wound is superior. It makes a very small puncture, which never bleeds, and is so fine that it is easily pushed through by means of finger and thumb without needle forceps.

The wonderful success without antiseptics recorded by the great Scotch ovariotomist, Dr. Bantock, and by Mr. Tait, who have reduced the mortality to a very low degree, must have great influence in fixing the value of Listerism so far as it relates to abdominal surgery. At any rate, incompetent operators can no longer venture with impunity upon these capital operations under the dangerous impression, that in some mysterious way antiseptics will deprive a crude surgical performance of its greatest perils. Evidently it was not so much a question of Listerism as of removing the tumor with the least possible amount of operating, and in the shortest time consistent with careful attention to detail, and in the most gentle manner.

Dr. Dudley, however, raised the pertinent question whether Listerism should be placed on trial before a court of abdominal surgeons, and whether, if found unnecessary in peritoneal surgery, it would be fair to condemn it in general. He thought that such a verdict can not be sustained by the facts, but that the antiseptic principle in surgery is destined to stand. Even the most violent opponents of antiseptics agree that perfect cleanliness is essential. He knew of no other method by which cleanliness can be rendered so nearly absolute. Nor does the seeming ability of two or three of the most dextrous operators to do without antiseptics prove that it is not a useful aid to others. Clearly, the man who removes a tumor with the least operating and handling of the parts will require fewer preventive measures against inflammation and sepsis. Antiseptics, therefore, are most valuable for an inexperienced operator, and, to say the least, an additional safeguard for any one.

Some American operators are now having about as good results as can be shown in Great Britain, which seem to indicate that our former high mortality in this American operation has been due in reality to bad operating, and not, as many supposed, to climatic causes.

Prof. Christian Fenger replied to the question, raised by Dr. Dudley, that antiseptic precautions may be more important in surgery, in general, than in abdominal surgery, where it looks as though more perfect methods of operating without antisepsis give as good results as with antisepsis, as follows:

He thought that the abdominal, or rather peritoneal cavity, in respect to the antiseptic precautions, occupies a peculiar position in surgery. The danger from absorption of the poisonous antiseptics is far greater in the abdomen than in wounds. The ability of the peritoneum to absorb serous fluid and blood before it decomposes, to encapsulate foreign substances not capable of absorption—*ex. gr.*, rubber ligature—is perhaps somewhat greater than the ability of a wound in that direction, although it may be that there is some prejudice about this, as we have not as yet used silk ligatures extensively in general surgery.

As to the question, whether more perfect methods of operating without antisepsis will improve the results, or rather prevent inflammation and sepsis, he could say that outside of the peritoneum this question must as yet be answered in the negative.

In 1873, Volkman, of Halle, introduced the Lister method of dressing and operating in his surgical clinics. In his report of the work done in 1873 (*Beiträge zur Chirurgie*, 1875), antiseptic surgery had reduced inflammatory and septic complications following excisions, amputations, fresh penetrating articular wounds, fresh open fractures, to a minimum never before dreamt of, and all this in one year. In the broad field of surgery it is not possible that Volkmann or anybody else could improve the *technique* of operating, to the extent of having the results change all of a sudden in that way. No surgeon would dare, to-day, to excise, for example, a knee-joint, without antiseptic precautions in all the minute details, even if he employed all the latest improvements in the method of operating. Abdominal surgery is the only branch of surgery in which, as yet, the heavy operating has been done without antiseptic precautions.

CORRESPONDENCE.

CHOLECYSTOTOMY.

To the Editor of The Medical News.

Sir: In your issue of August 22d you quote from a paper by M. Thiriar, in which it is stated that "the operation proposed by Mr. Lawson Tait is attended by the inconvenience of leaving a biliary fistula, a condition not free from danger."

I do not know who M. Thiriar is, but it is inconceivable how he has managed to make such a misstatement. The operation leaves a biliary fistula just so long as lithotomy leaves a urinary fistula—that is, until the wound heals, and this generally occurs in twenty days unless some stone, undiscovered at the time of operation, has been left. If this has happened, the non-closure of the wound speedily proves it, the stone is removed and the wound heals. This is what I have published more than once, and this is my uniform experience, but M. Thiriar would make it appear that the fistula is a permanent result of the operation.

I am, etc.,

Lawson Tait.

Birmingham, October 2, 1885.

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MEDICINE IN CHINA.

To the Editor of THE MEDICAL NEWS.

SIR: In reading your article of to-day under this caption, I was disappointed in not finding some reference to the Chinese treatment of syphilis, a disease which, I am credibly informed, they are very skilful in curing.

Parties who have contracted this disease on the Pacific slope where the Chinese element is numerous, have told me that, after undergoing a protracted mercurial course and subsequently the mixed treatment, only to find that the disease had not entirely yielded, they were advised to consult a Chinese physician, who cured them in a week or two. My informants were not able to tell what medicinal agents were used in accomplishing this result, only that they consisted entirely of herbs. Little bits of branches or twigs were deftly arranged together, about the length of an ordinary candle. The patient was advised to light one end of this and go to bed, and allow it to burn, to the extent of about one-third of its length, under the blanket which is covered over the patient's head. He was enjoined to breathe the smoke resulting from this, and he said that it nearly killed him. It caused the most profuse diaphoresis, intense dyspnœa, and utter prostration. This procedure was repeated three or four times, and from that day to this, a period of fourteen years, no symptoms of the disease have manifested themselves in the case to which I refer. I am not sure but that some herbs were given in an infusion, for the patient to drink in conjunction with the inhalation process.

Judging from the character and habits of the Chinese in California, and from the great prevalence of the disease amongst them there, I am led to suppose that syphilis is widespread in China. If this be the case, it is quite probable that the ingenious Chinese mind has evolved some mode of treatment of this disease which has not come to our knowledge. If this be the case, let us have all the information procurable on the subject, no matter if obtained from the "Heathen Chinee."

Yours respectfully,
H. J. MURPHY, M.D.

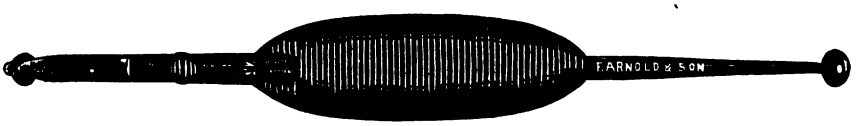
CHATHAM, ONTARIO, October 17, 1885.

NEW INVENTIONS.

A NEW COMEDO EXTRACTOR.[1]

BY ROBERT B. MORISON, M.D.,
OF BALTIMORE.

THE extractor consists of a handle of steel, which has two arms extending from it. At the end of each arm is a small steel cup, with highly polished outside surface, the bottom of which is pierced by a small hole. The cups are bent at an angle of 45 degrees. On one arm there is a small knife, made like a dagger, which, by being pushed, runs through the cup, in which there is a slit cut to receive it. It projects beyond the outside surface of the cup about the eighth of an inch, and is guided by a slot which works upon a pin upon the arm of the instrument, and is removable for sharpening and cleansing.



The advantages of the instrument over others of its kind are the slight indentation made by the cup upon the skin; the chance it gives one of watching the comedo as it is extracted, thereby regulating the necessary pressure; the possibility of using a knife and pressure at the same time without changing instruments, and the difference in size of the holes in each cup.

The accompanying figure, of normal size, shows the instrument without further explanation.

It was made for me by Arnold & Son, of 15 Hopkins Place, Baltimore, to whom my thanks are due for elaboration of details.

[1] Exhibited at the ninth annual meeting of the American Dermatological Association, August, 1885.

NEWS ITEMS.

NEW YORK.

(*From our Special Correspondent.*)

POISONED BEER.—The zeal displayed by one Bureau of the Health Department, that which deals with food adulterations, etc., has more than once been expressed in a way to excite ridicule. A recent sensational paragraph in the *Herald*, headed "Poisoned Beer," details the discoveries of Dr. Cyrus Edson and his coadjutors of metallic impregnation from contact with the pipes. Yet it furthermore declares that, owing to the excess of organic matter, no copper or other salts could be found. To those who daily use Fehling's test, this new scientific truth will be a novelty.

SMALLPOX.—Notwithstanding the terrible ravages of smallpox in Montreal, there has been very little of the disease here. The admirable system of limiting vaccination, instituted during the outbreak of 1873 by the New York Board, has been rigorously adhered to, and our safety is due to this.

MENTHOL has been extensively used in this city as a remedy for hay fever, and with some success.

WASHINGTON.

(*From our Special Correspondent.*)

PRECAUTIONS AGAINST THE INTRODUCTION OF SMALLPOX.—Inspection stations have been established by the Marine-Hospital Service at the towns lying on the Canadian border of the States of Maine, Vermont, and New York. The States of New Hampshire and Michigan are maintaining their own inspection stations at present, the State of Michigan having an appropriation which became available on the 18th of September for this purpose, thus relieving the Government from the further conduct of the work and continuance of the inspection service in that State. The New Hampshire inspectors are working in harmony with those under the Marine-Hospital Service in Vermont. The inspec-

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tions are having a twofold effect. They not only prevent the introduction into the United States of unvaccinated persons, but have had a reflex influence in stimulating the Montreal authorities to renewed efforts, which, owing to recent decisions of the local courts, they are now fully empowered to carry into effect. Surgeon H. W. Austin, under the direction of the Surgeon-General of the Marine-Hospital Service, has had charge of the organization of the inspection service along the border, from Moose River, Maine, to Buffalo, N. Y.

MORE RESIGNATIONS FROM THE CONGRESS.—DR. HENRY I. BOWDITCH, of Boston, declines the Vice-Presidency of the proposed Congress in the following open letter, which is published in *The Boston Medical and Surgical Journal:*

"Since Dr. J. S. Billings, as Secretary of the Committee for arranging the International Congress for 1887, informed me that I was selected as one of the vice-presidents of the Congress, I have had no *official* notice either of my summary displacement by the new committee at its meeting in Chicago (June 24) or of my reinstatement by the same committee (Sept. 3). For this and other reasons to be named, I ask a place in your Journal for the following statement: When urged by some friends to sign the protest made in several cities, by gentlemen opposed to the action taken at New Orleans, I replied, 'It would be absurd for me to do so, because the Committee has already expelled me from office.'

"Since that time I have watched with interest the course pursued by *The Journal of the American Medical Association*, and also that of the new committe for the International Congress. I have read with pain the perpetually recurring bitterness and insinuations against all those who had dared to express opinions adverse to the doings of the Association, or those of its new committee. I was surprised and disgusted while reading the editorials of August 1st, entitled 'The International Medical Congress and its Enemies,' and that of August 29th, 'International Medical Congress of 1887 and the American Medical Association.' From these editorials any foreigner reading them would not have the least suspicion that the controversy on the 'Code' had any share in the embroglio, at present existing. I wholly deny that those who now disapprove of the course the Association and its Committee have taken, are the 'enemies of the International Congress.' On the contrary, they are, in my opinion, its best friends.

"Notwithstanding my objection to such editorials, I have continued to decline to sign the protest in the hope that, by so acting, I might perchance do something toward the promotion of professional harmony in America.

"But the last manifesto of the Committee and gross assumption of despotic power for making all future arrangements for the Congress (*vide* 'Executive Committee of the Ninth International Congress,' *Journal American Medical Association*, September 3d) convince me that I can remain no longer in the position to which the new committee (as I learn from the journals) placed me without my knowledge or consent at their meeting in September."

Dr. George W. Major, of Montreal, has declined to serve on the Council of the Section of Laryngology.

REGULATIONS FOR THE MAINTENANCE OF QUARANTINE INSPECTIONS ON THE NORTHERN FRONTIER OF THE UNITED STATES.—Dr. John B. Hamilton, Supervising Surgeon-General U. S. Marine-Hospital Service, has issued the following circular:

The act approved April 29, 1878, entitled "An act to prevent the introduction of contagious or infectious diseases into the United States," provides that no vessel or vehicle coming from any foreign port or country where any contagious or infectious disease exists, or any vessel or vehicle conveying persons, merchandise, or animals affected with any contagious disease, shall enter any port of the United States, or pass the boundary line between the United States and any foreign country, except in such manner as may be prescribed under said act.

Attention is now directed to the prevalence of the contagious and infectious disease of smallpox in Montreal and other places in the Dominion of Canada, and the law referred to is held to apply alike to trains of cars and other vehicles crossing the border, and to vessels entering ports on the northern frontier.

Because, therefore, of the danger which attaches to the transportation of persons and baggage, and articles of merchandise, or animals, from the infected districts, the following regulations are framed, under the direction of the Secretary of the Treasury, and subject to the approval of the President, for the protection of the health of the people of the United States against the danger referred to:

1. Until further orders, all vessels arriving from ports in Canada and trains of cars and other vehicles crossing the border-line, must be examined by a medical inspector of the Marine-Hospital Service before they will be allowed to enter the United States, unless provision shall have been made by State or municipal quarantine laws and regulations for such examination.

2. All persons arriving from Canada by rail or otherwise must be examined by such medical inspector before they will be allowed to enter the United States, unless provision has been made for such examination as aforesaid.

3. All persons coming from infected districts, not giving satisfactory evidence of protection against smallpox, will be prohibited from proceeding into the United States until after such period as the medical inspector, the local quarantine, or other sanitary officer duly authorized, may direct.

4. The inspectors will vaccinate all unprotected persons who desire, or are willing to submit to, vaccination free of charge. Any such person refusing to be vaccinated shall be prevented from entering the United States.

5. All baggage, clothing, and other effects, and articles of merchandise, coming from infected districts, and liable to carry infection, or suspected of being infected, will be subjected to thorough disinfection.

6. All persons showing evidence of having had smallpox or varioloid. or who exhibit a well-defined mark of recent vaccination, may be considered protected, but the wearing-apparel and baggage of such protected persons who may come from infected districts, or have

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been exposed to infection, will be subjected to thorough disinfection as above provided.

7. Customs officers and U. S. medical inspectors will consult and act in conjunction with authorized State and local health authorities so far as may be practicable, and unnecessary detention of trains or other vehicles, persons, animals, baggage, or merchandise, will be avoided so far as may be consistent with the prevention of the introduction of diseases dangerous to the public health into the United States.

8. Inspectors will make full weekly reports of services performed under this regulation.

9. As provided in Section 5 of said act, all quarantine officers or agents acting under any State or municipal system, upon the application of the respective State or municipal authorities, are empowered to enforce the provisions of these regulations, and are hereby authorized to prevent the entrance into the United States of any vessel or vehicle, person, merchandise, or animals prohibited under the act aforesaid.

10. In the enforcement of these regulations there shall be no interference with any quarantine laws or regulations existing under or to be provided for by any State or municipal authority.

THE PROFESSORSHIP OF PHARMACOLOGY AT THE JOHNS HOPKINS UNIVERSITY.—It is rumored that Prof. Matthew Hay, of Aberdeen, Scotland, has been offered and will accept this position, and will enter upon its duties next autumn.

THE WASHINGTON OBSTETRICAL AND GYNECOLOGICAL SOCIETY.—At the annual meeting of the Washington Obstetrical and Gynecological Society, held on October 16, 1885, the following officers were elected for the ensuing year:

President.—Dr. A. F. A. King.

Vice-Presidents.—Drs. W. W. Johnston and J. Taber Johnson.

Recording Secretary.—Dr. C. H. A. Kleinschmidt.

Corresponding Secretary.—Dr. S. S. Adams.

Treasurer.—Dr. G. B. Harrison.

THE DEATH OF PROF. ROBIN.—The founder and for a long time the leader, of the French school of histology, Professor Charles Robin, died on Tuesday last of apoplexy, at the age of 64.

The history of Professor Robin was for a long space of time the history of medical microscopy itself, and he stood prominent as the representative of that branch of study, in opposition to Velpeau and other practical and clinical teachers, who endeavored to cast ridicule upon the microscope and histology as viewed in relation to medical science. The triumph of Robin appeared complete, when, in 1861, a chair of histology was created at the Faculty of Medicine, of which he became, of course, the first occupant. His success was great at first, but he soon became unpopular with the students on account of his extreme severity as an examiner; while on the other hand, the clerical party, then predominant, were incensed at the so-called materialistic tendencies of his lectures and writings. The combination of these two hostile forces led to violent scenes, in which the Professor was hissed, abused, and prevented from speaking. At a later period he regained his popularity through the petty persecutions of the clerical party, which, among other annoyances, excluded him from the list of persons qualified to sit upon a jury, although at this time Robin was unquestionably one of the most celebrated men of science in Europe. He had become, in spite of strenuous opposition, a member of the Institute in 1866. When the Senate was created, in 1870, Robin was named a Senator by his native department (Ain). He remained a member of the Assembly till his death, although in politics, like many scientific and literary celebrities, he was content to play a dumb part. Indeed, both his qualities and defects made him unfit to play the part of a Demosthenes; he had neither the eloquence nor the assurance which are the stamps of the political orator, and which are seldom developed by a severe process of scientific training.

Robin was one of the chief disciples of Auguste Comte, and one of the founders of the celebrated *Société de Biologie*, along with his intimate friend Claude Bernard. He was also closely connected with Littré, and became with him one of the joint editors of the *Dictionnaire de Nysten*, which, although in the beginning a mere vocabulary of words employed in medical science, became a stumbling-block to orthodox believers, and a sort of gospel to the followers of positivism, through the extreme boldness of some of its definitions, those for instance, of *Ame*, *Homme*, and a few others of the same description. In private life Robin was a most amiable and disinterested man. All his pupils were much attached to him, and he will be sincerely regretted by his numerous friends.

The Chair of Histology at the Faculty of Medicine, left vacant by Robin's death, will probably be disputed by numerous candidates, among whom the most prominent are Drs. Lancereaux and Mathias Duval and Professor Ranvier.—*Medical Times*, October 10, 1885.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, FROM OCTOBER 13 TO OCTOBER 19, 1885.

VOLLUM, E. P., *Lieutenant-Colonel and Surgeon.*—Assigned to duty as Attending Surgeon, Headquarters Department of the Platte, Omaha, Nebraska, relieving Assistant Surgeon Wm. C. Shannon.—*S. O. 103, Department of the Platte*, October 15, 1885.

IRWIN, B. J. D., *Lieutenant-Colonel and Assistant Medical Purveyor.*—Ordered from Department of Arizona to New York City, for temporary duty in charge of Medical Purveying Depot at that place, relieving Captain Henry Johnson, Medical Storekeeper.—*S. O. 233, A. G. O.*, October 10, 1885.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY DURING THE WEEK ENDING OCTOBER 17, 1885.

BALDWIN, L. B., *Passed Assistant Surgeon.*—Detached from Naval Hospital, Philadelphia, and ordered to Navy Yard, Mare Island.

DICKINSON, D., *Surgeon.*—Detached from Naval Hospital, Mare Island, and ordered to Training Ship "Portsmouth," as relief to Surgeon A. M. Moore.

MOORE, A. M., *Surgeon.*—Detached from Training Ship "Portsmouth," and wait orders.

SHAFER, JOSEPH, *Assistant Surgeon.*—Detached from Receiving Ship "St. Louis," and ordered to Naval Hospital, Philadelphia, as relief of Past Assistant Surgeon Baldwin.

HESTER, F. A., *Assistant Surgeon.*—Detached from United States Steamer "Minnesota" and ordered to the "Tennessee," as relief of Passed Assistant Surgeon Nelson H. Drake.

DRAKE, NELSON H., *Passed Assistant Surgeon.*—Detached from the "Tennessee," 31st instant, and wait orders.

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THE MEDI

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ORIGINAL ARTICLES.

REMARKS ON THE TREATMENT OF ROSE-COLD AND HAY FEVER BY COCAINE.[1]

BY J. M. DA COSTA, M.D.,

PROFESSOR OF, MEDICINE IN THE JEFFERSON MEDICAL COLLEGE.

IN a communication which I made to the Colleg last December,[2] I suggested that cocaine ought to b advantageous in hay fever. During the past summe I have had several opportunities of carrying thi thought into effect, and, as I see by some very recen journals, others, too, have employed the drug wit the same purpose; altogether, I think, it has bee sufficiently tested for us to welcome it as a very de cided addition to our means of counteracting thi most troublesome affection.

The first case in which I became familiar with it use was one of great susceptibility of the nasal mucou membrane, which I saw last spring in a Souther gentleman. It was more like rose-cold, strictl speaking, than like hay fever, but due to the sam irritability of the mucous membrane, and alway marked and most annoying with early vegetatior A two per cent. solution, which I afterward increase for a time to a four per cent. solution, gave him suc comfort and relief, that I had some difficulty in ir ducing him to discontinue the remedy. He said tha its local employ not only soothed the intolerabl irritation and stopped the sneezing fits, but exerte a quieting influence over his whole nervous systen similar to what he experienced from small doses c morphia, to the influence of which he was very ser sitive.

One of the most striking instances of success I ha with cocaine was in a young lady who had been fc four years a great sufferer with rose-cold, whic always came on about the middle of May, and laste until June. Later it became a hay fever, and at tacks of troublesome asthma complicated the dis order during the summer and the early autumn especially in the latter part of July and August. Sh is a young lady with a sound digestion, and calr nervous system. It has been her habit to leave he country home in summer to go to Newport, whenc generally, after a month's struggle with asthma, sh has been obliged to move to some of the hay feve resorts in the White Mountains. Her eyes and nos suffer much in the earlier stages of the complaint there is, however, no sore throat. Later a bronchia affection and asthma appear. The main complair in the earlier stages is from the intolerable sneezing This occurs especially in paroxysms in the morning and is apt to stop after breakfast, although on cool day

[1] Read before the College of Physicians of Philadelphia, Oct ber 7, 1885.

[2] Published in THE MEDICAL NEWS of December 13, 1884.

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a varying susceptibility—to cocaine locally used. Thus, in an elderly lady with rose-cold, in whom no local remedies act speedily, a four per cent. solution produced very little impression. I meant to try an eight per cent. solution, but, as she left the city, I had no chance, and am thus forced to record this case as a failure.

The manner of employing the cocaine is not without importance. It may be used with a small atomizer as a spray. But the readiest means is to inject from five to eight drops up each nostril, the head being thrown backwards; in some persons once, in most, twice daily, will be found sufficient. It will be necessary to instruct patients not to irritate the membrane by rubbing it needlessly with the glass tube, or pushing this up too far. Thus a patient who had hay fever for thirteen years, and who was at the seashore on the 17th of August when the hay fever came on, and in whom tincture of ignatia amara seemed favorably to influence its course, tried cocaine in one nostril only. He inserted the tube far up, irritated the membrane, and water ran from that nostril, which became sorer and more inflamed than the other. More judicious attempts produced better results, but he could not be persuaded to give the remedy a fair trial, owing to his first experience with it.

Its mode of action in hay fever is partly by the local insensibility it produces, partly by the contractions of the capillaries it induces. The effects are thus chiefly local. It will not arrest the bronchial catarrh or the asthma, which attend some cases; yet it is astonishing how it seems to lessen the tendency to these complications when early applied, and before they have got much headway. Is its action, then, not partly a reflex action? That the remedy is radical, and, strictly speaking, curative, I have not found; but that it gives great comfort, converts bad into light cases, enables those to stay at their homes who otherwise are obliged to flee to hay fever resorts, relieves much suffering and distress, I know and have fairly tested. In no case of rose-cold or hay fever ought cocaine to be left untried.

CONTRIBUTION TO THE ETIOLOGY OF MALIGNANT TUMORS.

BY R. J. HALL, M.D.,
OF NEW YORK.

So much of an almost purely speculative character has been written during the last few years on the etiology of malignant tumors, that did this paper contain merely a new hypothesis, I should scarcely venture to present it to the Surgical Society.

It consists, however, chiefly of a series of cases, most of which have come under my own observation, which, in my judgment, strongly support that hypothesis which is slowly but surely working its way into the minds of most thinking pathologists and surgeons. I refer to the hypothesis which attributes these mysterious neoplasms to a specific virus, in all probability a microörganism.

Without stopping to give an accurate definition of the term "tumor" in general, it may be sufficient to say that by malignant tumors we mean such as invade the neighboring tissues and produce metastases,[1] and that all such tumors are included in two great classes, carcinoma and sarcoma. In regard to the first of these, almost all pathologists have accepted Waldeyer's view, that the cells which occupy the alveoli are epithelial, and the tumors, therefore, are essentially of epithelial origin; while there is no doubt whatever that the sarcomata are built up of connective-tissue elements.

The theories hitherto formulated in regard to the origin of these tumors have been so well classified by Dr. H. F. Formad, in an exhaustive paper on the same subject, that I cannot do better than reproduce this classification. Under each heading he has given a list of the pathologists who have supported the hypothesis. This list is as follows:

1. Predisposition and inflammation theory (Virchow, S. D. Gross, Woodward, Samuel Wagner, Birch-Hirschfeld, Cornil and Ranvier, Perls, Tyson, Gross).[2]

2. Dyscrasia theory (Rokitansky, Paget, Billroth, Simon).

3. Embryonal theory (Cohnheim, Thiersch, Waldeyer, Lücke, Masse, Hasse, Epstein).

4. Idiopathic or spontaneous (Rindfleisch, Stricker, Nancrede, Payne).

5. Nervous theory (Van der Kolk, Lang, Snow).

The nervous theory is, I think I may safely say, too fanciful to merit discussion, except when considered as a possible predisposing cause. The idiopathic and dyscrasic theories mean nothing, the terms themselves being mere words which either confess our ignorance or serve as a cloak to hide it. Cohnheim's, or the embryonal, theory, which has lately fallen into some discredit, undoubtedly offers a satisfactory explanation of the origin of some benign tumors, and may afford a beautiful explanation of one of the facts in regard to the structure of many malignant tumors apparently most difficult to reconcile with our hypothesis. For, if in certain regions, as in the parotid, embryonic remains are of frequent or constant occurrence, and in others occur rarely or not at all, we can understand why in the one case the same irritant should give us a mixed, in the other a simple tumor.

There remains then only the predisposition and inflammation theory. Under the great authority of Virchow pathologists have been ready enough to accept this last as a sufficient explanation; that they have been and are still very slow to recognize that inflammation is of a specific kind, is due, I think, chiefly to the following causes. When following closely on his cellular pathology, it was demonstrated by Virchow that tumors consisted of cells not differing genetically from those found in normal tissues, the discovery excited such enthusiasm that many were convinced that the life history of the cell alone could sufficiently account for all the phenomena. Thus, according to the widely accepted view of Thiersch, in old age the resistance of the connective tissue is diminished, the interstitial spaces are widened under some local irritation, the deeper epithelial layers proliferate and penetrate the underlying tissues, penetrate the lymph spaces, and are swept into the neighboring lymphatic glands where, in accordance with

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their life history, they develop indefinitely, and not being on a surface where constant desquamation can occur, must do so at the expense of the surrounding tissues. Thiersch, while correctly recognizing the inflammatory character of at least one group of malignant tumors, the carcinomata, could not at that time make the distinction now clearly recognized between simple, or non-infective, inflammations, and infective, and his followers, with less excuse, refuse to do so even now. We have many instances of local infective inflammations giving rise to metastases; not one, so far as I know, of the non-infective. The view that malignant tumors are of inflammatory origin is one which has spread widely among pathologists, especially since it has been found necessary to place the so-called granulomata, tubercle, lepra, and syphilis among the inflammatory diseases. The points of analogy between these and the malignant tumors are too numerous and obvious to have escaped observation. They have been presented at length by Dr. Formad in an exhaustive paper,[3] and by Dr. Nedopil.[4] Time will only permit me to discuss them briefly to-night.

Tubercle, which may be taken as the representative of the granulomata, was long considered to be an ordinary inflammation in a tissue predisposed to disease. This is the standpoint which many pathologists occupy at present in regard to malignant disease. It is interesting to note that Formad,[5] whose weakness for peculiarities in the lymphatic system as sufficient to account for the origin of tubercle led him to reject the tubercle bacillus, and brought down on him what can only be described as the annihilating criticisms of Professor Koch[6] and Dr. Shakespeare,[6] finds in the absence of the endothelium of the lymph spaces, in carcinomata and sarcomata, a sufficient explanation of their peculiar growth.

Numerous attempts have been made to show that the anatomical peculiarities of tubercle tissue, epithelioid cells, giant cells, cheesy degeneration, are sufficient to account for all the peculiarities of the disease. The researches of Baumgarten[8] and Weigert[9] show that they represent only the reaction of the enfeebled cells under the irritation caused by the bacillus. A pathologist can hardly fail to be struck by the similarity of the enormously hypertrophied cells almost constantly found in sarcomata and carcinomata to the epithelioid and giant cells of tubercle, while the frequency with which they are found in a state of fatty degeneration, and the readiness with which they undergo spontaneous necrosis remind us forcibly of cheesy degeneration. The discussion was not yet quite terminated among pathologists as to whether tubercle tissue always differs so much from other inflammatory products as to make the microscopic diagnosis possible in every case. In the same way the exact line between certain sarcomata and the products of chronic inflammation has never yet been drawn, while that form of tubercular skin disease known as lupus papillaris or verrucosis, commonest on the dorsum of the hand, and of undoubted inflammatory origin, is, as I have myself had occasion to observe, undistinguishable under the microscope from epithelioma.[10] Into what absurdities we may be led by regarding carcinoma as merely a non-specific inflammatory process is well shown by the statement of Formad,[11] that there are great numbers of chronic ulcers of the leg in the Philadelphia hospital, and that a large proportion of them are carcinomata—because he has found epithelial nests and proliferation of the interpapillary epithelium.

Both tuberculosis, as seen by the surgeon, and malignant tumors are distinctly associated with traumatisms. Thus Volkmann states that the great majority of tubercular bone and joint diseases are referable to an injury,[12] while Formad alleges that he finds an inflammatory origin in nearly one-half of all tumors.

Dr. D. G. Zesas quotes[13] S. Wolff's statistics drawn from tumor cases observed in the surgical clinic at Berlin between 1864 and 1873, according to which in 344 cases of carcinomata a trauma was given as the cause forty-two times, and in 100 of sarcoma twenty times.

It is well known that sarcomata usually follow a single injury, and carcinomata a long-continued irritation. The reverse, however, is by no means unknown. Thus Weil[14] gives two cases of sarcoma attributed to repeated irritation. Dr. R. F. Weir[15] has reported a case of scirrhus of the penis following a contusion received four months previously, and refers to a similar case reported by Holmes Coote.[16] J. W. Spulke* reports a case, occurrring in a man aged 68, in which a small wound of the palate, made by the stem of a pipe driven into the mouth, was followed in a month by a small wart, which grew rapidly, and six months after extirpation recurred, extended rapidly and caused the death of the patient. Microscopic examination proved the tumor to be an epithelioma.

If we deny the existence of a specific virus in these cases, we are compelled to fall back upon the vague term predisposition, which was formerly used to explain the cases of tubercular disease having a similar origin. On the hypothesis of a non-specific inflammatory origin, it is difficult to account for the fact that in some countries malignant tumors are practically unknown.[17] For surely contusions and chronic inflammatory processes with diminished resisting power on the part of the connective tissue cannot be wholly wanting in these places. One of the strongest objections made to the assumption of a specific poison in the case of malignant diseases, has been the absence of any evidence of contagion. Cohnheim[18] denied the existence of a specific poison on the ground that the surgeon is never infected from his patient, *or the husband from the wife.* It is well to remember that precisely the same objection was made to the tubercle bacillus. Many physicians of large experience declared that they had never seen a case of even probable tubercular infection; yet now the journals are filled with them, and while the surgeon seems still to be safe, the anatomist has not been spared.[18]

It is to meet this objection that I have ventured to present the following cases to the Surgical Society. Three of the series are from the practice of Dr. Sands, and one or both of the patients concerned in each case have come under my own observation; for the fourth I am indebted to Dr. Markoe, and the fifth

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was seen at the Outdoor Department of the Roosevelt Hospital by myself:

CASE I.—Mr. Thomas E. C., æt. 40, married, N. Y., clerk, admitted to Roosevelt Hospital December 3, 1878. Family history good. Patient has varicocele on the left side, and tumor of the left testicle of twenty-two months growth, the size of a cocoanut, smooth, firm, and of fibrous consistency. Extirpation of the tumor January 3, 1879, by Dr. Sands. Death January 26 from suppression of urine due to pressure on the ureters by metastatic growths in abdominal cavity. Microscopic examination by Dr. Delafield showed the tumor of testicle and in the abdominal cavity to be encephaloid carcinoma[19].

Mr. C.'s widow subsequently married. Margaret Anne, N. Y. City, æt. 50 years and 3 months, died while under my care, April 12, 1885, with carcinoma "en cuirasse," originating in the mammæ. Tumors were stated to have been first noticed in 1882, and in both breasts at the same time. The growth was confined to the mammary glands and the skin, no enlargement of the axillary glands occurred, and only superficial ulceration of the carcinoma. Death due to repeated hemorrhages from the ulcerating surface and to exhaustion. No autopsy obtained.

Mrs. L.'s mother, Mary Anne D., died January 20, 1885, æt. 81 years and 6 months, of acute bronchitis and broncho-pneumonia. One month before her death the patient consulted me with regard to a rapidly growing tumor of the right breast, which she had first noticed one month previously. My diagnosis was probable carcinoma. The tumor was seen also by Dr. Sands, who concurred with me. The family history of this patient was good, especially no history of tumors. She had been a good deal with her daughter during the illness of the latter, but did not live in the same house. No autopsy obtained.

CASE II.—Mrs. D., æt. 43, with good family history, was subjected to operation by Dr. Sands on May 5, 1882, for carcinoma of the right breast of one year's duration. Recurrence took place about six months later, and the patient died about April, 1883. Microscopical examination by Dr. Satterthwaite showed tumor to be scirrhous carcinoma. Mr. George D., æt. 47, husband of the last patient, came under observation October 20, 1882, suffering from tumor of the superior maxilla. A younger brother died five years ago of what was said to be recurrent sarcoma of the testicle. Family history otherwise good. About three months ago the patient noticed a swelling in the left superior maxillary region, and thinks he noticed a hard lump beneath the left angle of the lower jaw some time before this. Both tumors have grown rapidly since. A tumor of soft consistency occupies the situation of the left superior maxilla, and extends in the direction of the malar bone. There is a mass of enlarged glands beneath the left angle of the lower jaw. Extirpation of the tumor and enlarged glands by Dr. Sands. Rapid recurrence and death in May, 1883. Microscopic examination shows the tumor to be an epithelioma.

CASE III.—Miss Isabella S., admitted to Roosevelt Hospital May 25, 1885, suffering from a rapidly growing tumor involving the right superior maxilla, and said to be of three months' duration. Extirpation of the superior maxilla by Dr. Sands, May 27, 1885. Death from shock and hemorrhage following the operation. Microscopic examination shows the tumor to be a giant-celled sarcoma. Mr. F. J. G., æt. 20, single, was engaged to Miss S. for some months before her death. He was submitted to a surgical operation on September 9, 1885, by Dr. Post for the removal of a small cystic tumor of the right superior maxilla, said to be of only three weeks' duration. The tumor lay in front of the antrum and did not occupy its cavity. Microscopic examination shows the tumor to be a giant-celled sarcoma.

CASE IV.—Taken from Dr. Markoe's work on *Diseases of Bones*, p. 266, 1882. Mrs. S. N. E., æt. about 23, consulted Dr. Markoe March 26, 1866, for a small tumor occupying the right side of the neck, behind the sterno-mastoid, and about the size of a hickory-nut. Operation May 1, 1866, when tumor was found closely attached to the transverse process of the fourth cervical vertebra. Recurrence after a few months, and slow growth until April 10, 1869, when a second operation was performed. Recurrence in fall of 1869, with gradually increasing paralysis due to pressure on spinal cord. Third operation on January 25, 1871, followed by complete relief of all the symptoms and no recurrence up to the present time. Microscopic examination by Dr. Delafield showed the tumor to be a myxo-sarcoma.

Mr. E., æt. 56, husband of the last patient, underwent on January 19, 1885, an exploratory incision of the abdomen, to determine the nature of an abdominal tumor, the symptoms of which dated from December, 1884. A soft friable tumor was found matting the viscera together in such a way as to prevent the possibility of its removal. The tumor was considered by Dr. Markoe to be sarcoma, probably originating in the great omentum. The patient died about three days after the operation. No autopsy was obtained.

CASE V.—Thomas C., N. Y., æt. 53, September 4, 1885; family and personal history good, especially no history of tumors or syphilis. Sixteen years ago the patient broke his left arm near the elbow, but recovered without stiffness or deformity. One month ago the left elbow and the right ankle became swollen, and swelling has increased rapidly since, without pain, redness, or tenderness, except over the internal malleolus where the pain is quite severe. Examination shows that the inferior extremities of the left humerus and the right tibia are expanded, so as to form distinct tumors, being smooth and of bony hardness. The neighboring bones and articulations are unaffected. Diagnosis of simultaneous sarcoma of the humerus and tibia. The patient was examined by a number of surgeons, who all concurred in the diagnosis. The tumors were especially unlike, in their growth and character, syphilitic or tubercular deposits, which almost alone might be supposed to come into consideration.

While taking the patient's history, I accidentally elicited the fact that his wife had died last February, after a six weeks' illness, with rapidly advancing hemiplegia of the left side, and that the diagnosis of the attending physician, Dr. A. R. Robinson, of this

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city, was tumor of the brain. Dr. Robins well-known skill as a pathologist lends wei diagnosis, informs me that the case was a we one of rapidly growing tumor of the brain the motor areas about the fissure of Roland far as the diagnosis could be made clini doubtedly sarcoma. Syphilis especially was excluded.

I am well aware that these cases are no criticism, especially on the ground of the al some of the cases, of a microscopic exa This, however, was unavoidable, and in no cases, except possibly the last, could there real doubt as to the nature of the disease.

In Case IV. the long interval which ap exist between the last appearance of the the wife and its occurrence in the husb seem to deprive the case of all significanc we consider, however, the extremely slow the original tumor, as seen in Mrs. E., h similar one might exist in the abdominal ca out giving rise to symptoms the objection l of its weight. The length of time also tha histologically malignant may remain later trasted with the frequently rapid growth of or similar tumors is, I think, not sufficien ciated by pathologists, and offers anothe analogy to tubercular deposits. When a tur has remained quiescent for many years, grow and take on the character of malign geons are apt to assume that it has underg tological change from a benign to a growth. The following cases tend to pro least sometimes the assumption is unwarran

Case VI.—A small tumor, about one-ha in length by one-fourth of an inch in width, to the skin, but situated in the subcutaneou tive tissue, was removed by Dr. Markoe back of a healthy man, where it had existed years, with, I am informed, little or no ch ing that time. The tumor is a small r spindle-celled sarcoma, with little intercel stance, and having histologically all the of malignancy.

Case VII.—Minnie M., æt. 18, 'sing family history, noticed a tumor of the ne the lobe of the left ear, three years ago. about the size of a pigeon's egg, and re conglomerate of enlarged lymphatics. Pat that it has scarcely grown or altered s noticed. Extirpation May 25, 1885. M examination shows it to be a myxo-sarcom tologically very malignant.

Case VIII.—Miss T., tumor in the san precisely similar to the former, occurring in woman, æt. 21, has existed for five or six grown almost imperceptibly. Patient desi tion only because a brother had died about previously of sarcoma of the pharynx. E by Dr. Sands, January 23, 1884. Micros amination shows the tumor to be almos similar in structure to the last.

The possibility of direct inoculation of t subject or of animals with malignant disease much discussed, and many experiments m

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point of injection was found a melanotic tumor, the size of a thaler, and pigment in the lymph vessels and neighboring lymphatic glands. The lymphatic glands, including the bronchial, were enlarged and pigmented. Lungs free. The same material was injected into the peritoneal cavity of a second dog, which was killed forty-three days later. At point of injection and in the mesentery were deposits of pigment. In one horn of the uterus were two pigmented tumors. Few glands were affected; one much enlarged inguinal gland. The bronchial glands were pigmented, but this was possibly from the lungs. All the pigment was in epithelial cells, but these were not similar to those of the tumor injected.

There is another way, however, of studying the subject. It will not be denied that there is not at present a pathologist of eminence who does not teach that malignant tumors are at first purely local. Could it be shown that carcinoma and sarcoma could be transmitted from man to man or from man to animals, the idea that nothing but the cell was inoculated would not be able to hold its place in scientific opinion for six months. We have passed the stage when it was possible to believe that an infectious disease can be of spontaneous origin. Yet if the disease be at first purely local the inoculation of a distant portion of the body in the same patient, the so-called contact infection is as valuable as the inoculation of another person would be. Cases of this kind are not rare in literature. The chief received instances are the following:

Dr. M. Nedopil† quotes a case narrated by Lücke of ulcerated carcinoma of the edge of the tongue, with inoculation of the mucous membrane of the cheek on the same side; a case by Kauffmann, in which a woman had cancer of the dorsum of the right hand, and, subsequently, of the conjunctiva of the right eye. Her relatives stated that she constantly wiped the right eye with the back of the right hand. Cases by Ahlfeld,‡ Hegar,§ and Spiegelber,‖ of direct inoculation of the vagina from the uterus; and cases by Klebs of inoculation of cancer of the tongue in the stomach. J. Reincke[25] gives two cases in which carcinoma developed in the punctures made to relieve ascites due to carcinomatous peritonitis. Prof. H. Quincke[26] gives a similar case. C. Bartsch,[27] in giving statistics of carcinoma of the lips, penis, and vulva, relates one case of possible contact infection. P. Kraske[28] gives two cases of rectal carcinoma in which small secondary tumors were found at a lower point, separated by healthy mucous membrane from the primary growth, and refers to Virchow's[29] well-known observation on the peculiar distribution of carcinoma of the peritoneum secondary to carcinoma of the stomach; to the cases of Lücke,[30] Kauffmann,[31] and Klebs[32] mentioned above, and to a case by Erbse,[33] in which a carcinoma of the œsophagus perforated the trachea, and gave rise to secondary tumors in the lower lobes of the lungs.

Beck[34] records the following three cases from the Institute of Chiari, Prague:

1. Ulcerating cancer of œsophagus. In anterior part of lower end of œsophagus and in stomach tumor of the same character—flat epithelial carcinoma.

2. Two carcinomata of the œsophagus separated by healthy tissue. The author admits the possibility of both being primary.

3. Multiple lymphadenoid round-celled sarcoma of most of the lymphatic glands, the lungs, spleen, and posterior surface of the stomach. In the ileum numerous similar nodules, not corresponding to Peyer's patches. In the cæcum an infiltration of almost the whole intestinal wall. The author excludes, on various grounds, all the other situations, and considers the growth in the cæcum as primary, and the other tumors in the intestinal tract as due to contact infection, the tumor particles being carried back by antiperistalsis; the tumor of the cæcum being ulcerated, and having caused much obstruction.

Beck quotes also a case by Hjelt, of carcinoma of the ileum and colon, with primary cancer of the duodenum.

Two cases of the kind have come under my own observation, as follows:

CASE IX.—Mr. A., an elderly gentleman, probably between 50 and 60, suffered for several years from a slowly growing epithelioma of the floor of the mouth on the left side, and encroaching on the posterior surface of the gum. Several operations were performed by Dr. Sands at varying intervals, with temporary success; but recurrence, after periods varying from two or three years to several months. After the fourth operation, December 18, 1884, rapid recurrence took place. A flat epithelioma developed on the hard palate, first at the point where the tip of the tongue, constantly in contact with the epithelioma in the floor of the mouth, would frequently impinge. The diagnosis in this case was confirmed by repeated microscopic examinations.

CASE X.—Mary M., æt. 44, single, March 29, 1885, family history good; no case of malignant disease known. Carcinoma of right mamma first noticed two years ago. Amputation of breast one year later. Axilla not opened. Recurrence noticed last October. Patient first seen March 29, 1885, suffering from carcinoma recurrent in cicatrix of operation; the new growth extending as nodular masses, ulcerated in part over almost whole of the right side of the thorax; anteriorly, laterally, and posteriorly to the external border of the scapula. Axillary gland on the same side much enlarged, and the whole right extremity enormously swollen, œdematous, and painful. On left side of the thorax, above the mamma, and on the left shoulder, are several isolated, not ulcerated, cancerous nodules, varying in size from that of a split pea to three-fourths of an inch in diameter, and not extending beneath the skin. Profuse sero-purulent discharge from the ulcers. Patient was last seen June 23, 1885, when the carcinoma had extended over the upper part of the abdomen, and a great part of the right scapula and shoulder. Ulceration of the carcinomatous masses in the axilla had occurred. The discharge from the ulcers on the shoulder and in the axilla constantly runs down on the anterior and internal surfaces of the arm and forearm to the wrist, exciting an eczema and inducing the patient to scratch. *All along this surface are cancerous nodules in the skin*, generally ulcerated or excoriated on the surface; some iso-

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lated, others confluent, and extending to th
Died of exhaustion July 10, 1885.

I may mention here one or two more int
points of analogy between tubercle and m
tumors. The former appears usually as a
less chronic and localized disease. It occurs
an acute infectious disease; acute miliary
losis involving the different organs with a
that was a complete mystery to the patholog
the views of Weigert, founded on careful an
researches, were confirmed by the demonstr
Weichselbaum,[35] Baumgarten,[36] and others, of
bacilli in the blood. Raymond and Brodeur
a case of primary acute miliary carcinosis, a
to two similar cases by Charcot. Numero
have been reported during the last few years
eral tuberculosis following operation on a lo
cess, the operative interference having o
opened the way for the bacilli into the gen
culation.[38] A precisely similar general c
infection has been reported by Dr. Schweni
follows: Girl, æt. 17, single, operation for
carcinoma of both ovaries. The tumors wer
tured shortly before the operation for diagno
poses. During the operation one of the tur
torn; no reaction; wound practically heale
or eleven days. From this time on a contin
of remittent character, diminished power a
bility in left arm and leg, with severe neuralg
and cramps in the affected extremities. R
tension of these symptoms to right side; b
catarrh, increasing weakness, and death thirty
after the operation. Post-mortem examinatio
that the peritoneum was thickly covered wi
nomatous nodules, varying in size from tha
head of a pin to a pea. Similar nodules in t
spleen, beneath the pleura, and in the par
of the lungs, and on the surface of the dur
In the interior of the brain was a colloid tum
the size of a hen's egg.

Finally, it is with some hesitation that I s
I have found bacilli in a single case of rapid
ing, not ulcerated, large-celled sarcoma of t
pital region occurring in a woman, and e
by Dr. Sands during the past year. The tum
had been kept in 95 per cent. alcohol since
ration, and the sections were stained with
by a slight modification of De Giacomo's[40]
for staining the bacillus of Lustgarten. The
cation consisted merely in more prolonged
sion in the staining fluid, and may not ha
essential. Every precaution was taken in th
using sterilized vessels, reagents, etc. Of
tions examined bacilli were found very spa
only one, and after prolonged examinatio
examination was made with a Zeiss oil immer
twelfth and Virich eye-piece, No. 3; using, o
the Abbie condenser. Though few in nun
bacilli found were very distinct, only one b
uated in each cell, straight, and apparently s
longer and plumper in proportion to thei
than the tubercle bacilli. I know well, o
that little or no scientific value attaches to
observation of the kind by one man, unsupp

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§ Prof. Hegar, Arch. f. Gynäk., Bd. ii.; ref. as above. ‖ Spiegelberg, Arch. f. Gynäk., Bd. iv.; ref. as above. —25. Virch. Arch., 51, 3, p. 391, 1870; ref. in Schmidt's Jahrb., 160, p. 75.—26. Ueber felthaltige Transudate, Prof. H. Quinckle, Bern, Deutsche Arch. für Klin. Med., xvi. 2, pp. 121–139, 1875; ref. in Schmidt's Jahrb., 169, S. 67.—27. Das Carcinoma, etc., C. Partsch, Breslau; ref. in C. f. Chir., 6, 1885.—28. Ueber die Entstehung Secundären Krebsgelschwülste Durch Lupfung. Centralbl. für Chir., 48, 1884.—29. Virchow, Die Krankhaften Geschwülste, B. i. S. 54.—30. Lücke, Die Lehre von den Geschwülsten, etc., Billroth und Pitha's Handbuch, B. ii., Abth. i. J. 50.—31. Kauffmann, Ueber Multiplicität des Primären Carcinoms, Virch. Arch., B. lxxx. S. 347. * Weigert, Lupsis, Virch. Arch., B. lxxvii. S. 269, and B. lxxxviii. S. 307; Ueber Venen Tuberculose und ihre Beziehung zur Tuberc. Blutinfection, und Deutsche Med. Wochenschr., No. 24, 1884; Neue Mitth. Ueber die Pathog. der Acut. Allg. Tuberculose.—34. H. Beck, Beiträge zur Geschwülstlehre, Zeitschr. F. Heilkunde, 1884, B. v. H. 6; ref. in Centralbl. für Chir., No. 34, 1885.—35. A. Weichselbaum, Wien. Bacillen im Blute bei Allgemeiner Acuter Miliartuberculose, Wien. Med. Wochenschr., 12 und 13, 1884.—36. Baumgarten, Tuberculosis by Injection of Blood, Centralbl. f. die Med. Wissensch., 15, 1881.—37. Raymond et Brodeur, La France Médicale, 1883; ref. in Lancet, March 31, 1883, p. 557, and N. Y. Med. Record, June 16, 1883.—38. Koenig, Ber. Der., xiii.; D. Chir. Cong. Wird eine Indication zur Gelenkresection bei Tuberculose Burch die aus der Gelenkskrankheit Erwachsende Gefahr Allgemeiner Tuberculose, Begründet? also Koenig, Tuberculose der Knochen und Gelenke und Szuman, Brisement forcé eines Scrofulös Entzündeten Kniegelenks, mit Konsekutiver Akuter Allgemeiner Miliartuberculose, Centralbl. f. Chir., No. 29, 1885; P. Aubert, Le Traitement du lupus à l'Antiquaille, Annales de Dermat. et Syph., vol. iv. No. 3; ref. in Centralbl. f. Chir., No. 9, 1884, p. 132. Two Cases of Rapidly Fatal Phthisis Pulmonum, shortly after Scarification of Lupus.—39. Dr. Schweninger, Bayer. Aertzl. Intell., Bd. xxiii. 327, 1876; ref. by Meissner, Ueber Krebs. Schmidt's Jahrb., 184, p. 102.—40. Friedlander's Fortschritte der Medicin, No. 16, 1885, p. 543.

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OBSERVATIONS ON SUNSTROKE AND HEAT EXHAU

BASED ON THE RECORD OF FIFTY CASES AD INTO THE PENNSYLVANIA HOSPITAL FR THE MIDDLE OF JULY TO THE MID-DLE OF AUGUST, 1885.[1]

BY ORVILLE HORWITZ, M.D.,
RESIDENT PHYSICIAN AT THE HOSPITAL.

IN presenting this paper to the medical p the writer deems it proper to state that i solely with a view to call attention to the t the cases of sunstroke and heat exhaustion w received into the Pennsylvania Hospital d months of July and August, for he cannot ing that a line of treatment which will bri favorable results when the temperature has 112° F., is worthy of being recorded.

He acknowledges his indebtedness to D Kirkbride, who was physician-in-charge of cal wards of the hospital during the summe for permission to publish the results of the

The first patient was admitted on the 16 July; the average of the thermometer bei in the shade.

The second case of sunstroke was received when the thermometer stood at 99.5° F shade. This man was brought in at 11 o'cl He had fallen whilst employed in loading with dirt.

He was unconscious and very restless. H ing was noisy and labored; respiration 165, strong and full. Temperature 109° F

He was at once immersed in a tub of ice-w removed when the temperature fell to 99 was then put to bed and covered with a sh rated with ice-water. Ice was applied to A hypodermic of tincture of digitalis (m an anal injection of antipyrin, was administ

At 11.30 a tendency to convulsions was The temperature was reduced to 102° F. injection of antipyrin of gr. xx was order had the effect of reducing the temperature t

Two hours after admission the patient be gain consciousness, but he appeared to b alarmed, and feared that those about him him bodily harm. He very soon became delirious, and a state of acute mania was d

[1] Communicated to the College of Physicians of P October 7, 1885, by J. M. Da Costa, M.D.

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sibility to pain may precede that of temperature.—*Archives Générales de Médecine*, October, 1885.

THE TREATMENT OF THE PEDICLE IN HYSTERECTOMY AND OVARIOTOMY.—KŒBERLÉ, *Journ. de Sociétés Scien.*, 1885, No. 18, in a discussion of the treatment of the pedicle in ovariotomy and hysterectomy, held the view that the common results in ovariotomy are not traceable to antisepsis alone, but to simplification of the operative technique, namely, upon the intraperitoneal treatment of the pedicle.

By the application of the *serre-nœud*, it was held, septic material forced itself along the pedicle into the abdominal cavity, and the shortness of the pedicle frequently caused pressure upon the abdominal walls, thus impeding circulation.

The dropping of the pedicle into the abdominal cavity obviates all these difficulties. The skin wound heals by first intention: septic infection, accident with the pedicle, strangulation of the intestine, and abdominal hernia seldom occur, while healing quickly occurs. The controlling of hemorrhage is a point requiring special care.

For this purpose cauterization of the pedicle is to be recommended, nevertheless several ligatures are to be applied. In one hundred ovariotomies, in which the extraperitoneal treatment of the pedicle was used, Kœberlé stated his mortality to be eleven, while in seventy-four cases in which the pedicle was dropped into the peritoneal cavity but five deaths occurred. The ligature must be made of Chinese silk, and firmly knotted.

In the operation of hysterectomy Kœberlé held that dropping the pedicle is only practicable when it is not too thick; when this condition exists, the extraperitoneal method must be adopted.—*Centralblatt für Gynäkologie*, No. 59, 1885.

TREATMENT OF HEMORRHOIDS BY FORCED DILATATION.—DR. ROSIÈRE, in an inaugural thesis, discusses the treatment of hemorrhoids by forced dilatation, and considers the indications for this measure to be the existence of pain and hemorrhage.

As a permanent cure for the condition, its efficiency is not satisfactorily proven, but it possesses the advantage of being applicable in cases where diathesis enters into the question of treatment.

The treatment of hemorrhoids by cauterization, as successfully managed by Professor Richet by means of a forceps combining the advantages of the cautery and écraseur, is highly commended, and described. The first step is to draw down the hemorrhoidal tumor, and surround it with a moistened pad to protect the buttocks from the heat of the cautery. The tumor is then perforated in three points with copper wire, care being taken to permit tissue to intervene between the wires, in order to prevent retraction. Each of the pediculated points is then compressed by the jaws of the forceps brought to a red heat, and the hemorrhoids give place to small dark stumps, no thicker than a sheet of paper.

This method of treatment has been followed by Prof. Richet in 160 cases without a single death. As a radical cure it is preferable to all other operations, and particularly to forced dilatation, which is frequently unsuccessful, and which is best adapted to those cases in which a surgical operation is feared by the patient.—*Revue de Thérapeutique*, October 1, 1885.

THE HÆMOSTATIC USE OF ANTIPYRIN.—E. CASATI (*Raccoglitore medico*, August, 1885) reports the successful application of antipyrin in four and five per cent. solutions, as a hæmostatic. The results attained by its use seem to warrant the following conclusions:

1. Antipyrin is a powerful hæmostatic.
2. It is superior to perchloride of iron because after its use the wound remains entirely clean.
3. It is superior to ergot because only in extremely large doses does it manifest a toxic action, while according to Huchard it exerts a hæmostatic action whether applied directly to the bleeding part or administered internally.
4. In many cases it is to be preferred on account of its antipyretic as also perhaps for its antiseptic effect.
5. The hæmostatic action is manifested in a very short time.
6. Further observation is necessary to determine its value in controlling secondary hemorrhage.—*Gazzetta degli Ospitali*, September 30, 1885.

RESORCIN IN THE TREATMENT OF GONORRHŒA.—DELLERBAUGH recommends the use of resorcin combined as follows, in injections, for the cure of gonorrhœa:

℞.—Zinc. acetatis . . .	gr. ¼ to gr. ½
Acidi boracici . . .	gr. xx.
Resorcin	ʒj.
Aquæ dest.	fʒiv.—Misce.

S. Inject two drachms three times a day.—*Revue de Thérapeutique*, October 1, 1885.

A NEEDLE FOUND IN THE CAVITY OF THE CRANIUM.—RUDOLF V. HÖSSLIN, in the *Deutsch. Archiv für klin. Med.*, Bd. xxxvi. Hft. 5 and 6, reports the case of a man, aged 52 years, in whom a rusty needle was found upon the dura mater, at a point corresponding to the posterior superior angle of the parietal bone. One end of the needle had perforated the dura and reached the parietal convolution without occasioning any change in the cerebral tissue. The fixation of the needle had occurred through proliferation of connective tissue. No abnormality was discoverable in the bone, or in the soft tissues.

V. Hösslin further calls attention to four cases, previously reported, in which needles have reached the cranial cavity by an unknown path, and in which no notable changes were produced by their presence.—*Centralblatt für klin. Med.*, October 3, 1885.

PORRO'S OPERATION.—DR. ANDRONICO BARSOTTI, on September 2d, in the Maternita di Lucca, performed a Porro's operation, which resulted successfully, the lives of both mother and child being saved.

The presence of extreme deformity, due to osteomalacia, necessitated the operation, which was performed early in labor, and with strict antiseptic precautions.

The uterus was incised *in situ*, and compression of the pedicle made by an iron wire fixed upon a Cintrat's *serre-nœud*.

The operation lasted forty-five minutes. The ligature came away on the eleventh day, and the patient's temperature, subsequent to the operation, was normal.—*Gazzetta Medica di Torino*, October 5, 1885.

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or eight weeks after the commencement of the disease, the presence of the patella reflex, from five to eight weeks after the recovery from the disease, as certainly happens, does not guarantee that the patella reflex will not disappear later, and that he who, up to this time, has remained free from serious disturbance of the central nervous system, will not ultimately suffer therefrom. On the other hand, the patella reflex may not be found a few weeks (three or four) from the commencement of the disease, while the patient, save the paralysis of the veil of the palate and slight disturbance in the function of the arches, feels perfectly well, and may remain permanently free from grave complications.

4. The disappearance of the patella reflex after diphtheria appears frequently to occur only on one side; likewise, in its restoration, it seems regained only on one side, or at least is plainly stronger on one side than on the other.

5. Disappearance of the patella reflex having once occurred, its absence may be remarkably persistent (five or six months), even when the patient, having been cured, presents no other symptoms of having suffered from the disease, such as ataxia or paresis.

6. This fact appears to possess certain importance in those researches which tend to establish the presence or the absence of the patella reflex in persons restored to health, who, having suffered from an attack of diphtheria, cannot be enumerated among the cured until after five or six months.

7. Whether the patella reflex may not only be preserved during the first five or eight weeks after the disease, as certainly happens, but for months, or in a word is never lost, the author has not yet been able to establish with certainty.

8. The cutaneous reflexes and the tendon reflex are not affected to an equal degree; the former are frequently found active, while the latter fail entirely, a fact which, observed even in tabetics, leads, according to the author, to the conclusion that the processes for the production of these so-called tendinous reflexes are distinct and not yet as sufficiently investigated, as those noted in the production of cutaneous reflexes.

9. The observations upon the disappearance or failure of the tendon reflex after diphtheria, have special value when the functions of the quadriceps extensor femoris are intact, when atrophy does not exist, and when the electrical excitability of this muscular group has suffered no profound disturbance and the patients are able to extend the leg freely and vigorously.

As to the explanation of this condition, that it may develop from the effect of acute infectious diseases, the author agrees with those who believe that it probably depends upon a disturbance of the function and nutrition of certain portions of the central nervous system, depending upon the emigration or development of germs.

The loss of the tendon reflex and ataxia are not in direct relation with each other. Both symptoms may be distinct and isolated. Tabes and diphtheria resemble each other in the fact, that the loss of the tendon reflex precedes ataxia, and frequently is manifested only on one side; but in diphtheria ataxia either follows in a few weeks or is entirely absent, while in tabes it frequently is not manifested until after the lapse of some years. A further distinction is, that the tendon reflex, when lost as a result of diphtheria, very generally is re-established—an occurrence extremely rare in tabes.—*La Medicina Contemporanea*, September, 1885.

THE IMMEDIATE IMPROVEMENT OF HEARING FOLLOWING DIVISION OF CICATRICES IN THE MEMBRANA TYMPANI.—H. BENDELACK HEWETSON, acting upon the suggestion of Professor Politzer, that the hearing may frequently be improved by dividing the cicatricial band in the membrana tympana resulting from healed perforation, reports two cases in which the operation was performed with favorable result. He says:

The first case in which I performed the operation was in a hospital patient of mine, attending my aural clinic at the Leeds General Infirmary. He came under treatment in March, 1884, and was then suffering from chronic otorrhœa following suppurative otitis, with a perforation in the left membrane, about the size of a No. 4 shot, straight below the handle of the malleus. So soon as the discharge was healed (under treatment by injection of a one in sixty solution of carbolic acid, after which iodoform was blown into the ear, which took place in two months and a half), it was evident that the boy did not hear so well. Originally, the discharging ear was the better of the two, the hearing in the other being almost lost from neglected chronic catarrhal deafness, associated with attacks of catarrhal otitis in childhood, but without a perforation in the tympanum. I waited some months, in order to give the cicatrix time to contract to the full; and, in February last, seeing that there was no improvement in the hearing, I divided the semilunar cicatricial band, where it was visibly the thickest, in two places, by means of a Gräfe's cataract knife. Before doing so I carefully tested his hearing. With the right ear he heard my watch at two inches distance, and not at all with the opposite ear. Immediately after division he heard the same watch six inches off, and could hear conversation much more easily, although he could not hear a whisper.

The sections in the membrane were about $\frac{1}{32}$ of an inch deep, and they visibly gaped, thus showing clearly the way in which the hearing became improved, namely, by releasing the cicatricial drag on the handle of the malleus. Testing the hearing a month from the operation, I found the hearing-distance from the watch still the same, but I thought that he did not hear conversation quite as well.

The second case which I have to report was in the person of a man, aged 52, who had had suppurative otitis at 14, during an attack of scarlet fever. In the left ear there was a thick semilunar cicatricial band surrounding the space formerly occupied by a perforation. The watch was heard only on close and firm pressure; but, on division of the cicatrix, slightly away from the ear, about a quarter of an inch. The most marked improvement, however, was for conversation, the man volunteering at once that the voice-sounds were heard much louder with this ear, which previously was almost useless for conversational purposes.

I only operated on the second case a fortnight ago, but, up to now, he says that his worst ear is the best. In this case I only divided the cicatrix once, to the extent of $\frac{1}{16}$ of an inch, about the centre of the semilunar curve.—*The British Medical Journal*, October 17, 1885.

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SATURDAY, OCTOBER 31, 188

ŒDEMA OF THE LUNGS.

ŒDEMA of the lungs is met with, first, an inflammatory process accompanying pi abscess, gangrene, and other morbid second, as a lesion limited to the posterio of the lungs, and evidently induced during dying, constituting hypostatic œdema; a as a widespread general infiltration of th The fluid is usually effused into the al Posner has shown by his careful method of tion, that the exudation is often interstiti it may occupy both localities.

The mode of production of the non-infl form of œdema has been much discussed elaborating his doctrine of œdema, Cohnhe the subject to be carefully investigated b now of Johns Hopkins University, whose been several years before the profession, and in the *Allgemeine Pathologie* of Cohnheim. ing to it, the chief factor in the production of the lungs is a weakened or paralyzed left with persistence of the action of the right cha a consequent enormous increase of the bloo in the pulmonary circulation. In rabbit œdema of the lungs was induced by ligati aorta, or of the pulmonary veins, or by co of the left auricle, or of the left ventricle was paralyzed—conditions in which the bl sure was greatly increased in the pulmona tion, and in which the right ventricle con beat for some time. Sudden œdema in renal disease can, therefore, be accounted weakened action of the left ventricle, with vigorous action of the right, or by sudde

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cibly than ever, by the opportune investigations of PROF. E. S. WOOD, of Boston, papers printed with red, brown, and blue arsenical pigments, are more frequently met with at present than the greens, which were formerly alone deemed deleterious to health.

In the last volume of the report emanating from the Massachusetts State Board of Health, Lunacy, and Charity, Dr. Wood gives in illustration of his excellent article on arsenic as a domestic poison, six pages, upon which are pasted small slips of thirty-four wall papers; one of calico, and one of turkey-red cotton fabric, all, with a single exception, more or less charged with arsenic. Some of these samples are pink and gold, others dark brown on a yellow or light brown ground, several are red, and a few only are green enough to excite apprehension among the verdant. The amount of poisonous metal per square yard varies from half a grain up to fifty-five grains, and the price from twenty cents to three dollars a roll. The single specimen of this series which analysis proved to be free from arsenic, is light green in color, and is quoted at the lowest price above mentioned, so that it is evident that inexpensive, non-arsenical, green pigments, suitable for use in the printing of paper hangings, can be supplied. A very significant fact is, that samples of the more highly charged arsenical papers, some of which contained as much as two hundred and eighty-eight grains in each square yard, are omitted, because they produced extremely disagreeable effects in the workmen who merely handled those furnished in a previous volume of these reports, during the process of binding.

Of other papers, those called by the trade "glazed and plated," and used largely by children in kindergarten schools, are probably the most dangerous. Certain of these, chiefly red and green, contain a large quantity of arsenic, which notwithstanding a reasonable amount of care on the part of teachers, is liable to find its way into the stomachs of young children, who handle the slips of paper, and not infrequently place them between their lips. It is quite probable, as suggested by Dr. Wood, that many cases of irritable stomach and of indigestion, ascribed to taking cold, or to some indiscretion in diet, are really due to mild arsenical poisoning produced in this way. The red, brown, and blue papers of various shades, used, for example, as wrappers for confectionery, making tickets, and covering boxes, are often highly arsenical. One sample mentioned as being of the kind used in the manufacture of band-boxes, was so impregnated with the noxious metal, that a small box of this kind with three square feet of surface, would have in its composition about one hundred grains of arsenic. Painted balls, India-rubber dolls, and especially toy candles, were also found to be sources of danger; one small green candle contained nearly a grain of arsenic, which must of course be volatilized, and distributed through the air of any room in which it is burned. Serious examples of arsenical poisoning have been traced to the use of a certain kind of glaze upon linen or paper collars and cuffs, the surprising amount of ten grains of arsenic being obtained from a single one of these articles of dress.

Prof. Wood has collected the records of over forty cases in which poisoning is reported to have occurred, chiefly from exposure to the dust of arsenical wall papers. From an analysis of these, he concludes that the local symptoms are those of irritation of the eyes, nose and throat, or of headache, nausea, and diarrhœa. The former group of disturbances is apt to be attributed to a common cold, whilst the latter derangements are liable to be mistaken for a fit of indigestion, or a bilious attack. The general symptoms due to the action of the poison, after it has been absorbed by some of the mucous membranes, comprise neuralgia, dizziness, severe headache, nervous prostration, trembling of the limbs, and attacks of syncope.

Curiously enough, an avenue for the disposal of red, brown, and blue wall papers, with which manufacturers appear to have overstocked the shops, seems to be opened by the suggestion that in miasmatic regions, the inhabitants should systematically respire the air of rooms decorated with these poisonous paper hangings, during the season in which malarious disorders are prevalent. According to Tomasi-Crudeli, the amount of arsenious acid necessary for fortifying the adult human organism against ague, is from one-thirtieth to two-fifteenths of a grain daily; and direct observation upon individuals residing in marshy localities would soon determine how many hours per day patients should inhale air charged with the arsenical dust from the walls of particular rooms, in order to introduce a sufficient amount of the counterpoison into their systems.

THE CAUSES OF ANEURISM.

FROM the earliest times in which aneurisms were recognized, attempts have been made to account for their occurrence. But most of these have met with little success, and the original cause of aneurism is almost as much in the dark now as it was in the days of Galen. But two recent contributions to the study of this subject throw a certain amount of light upon it. One of these is a paper in Langenbeck's *Archiv für klinische Chirurgie*, xxxii. Bd., 3 Heft, by DR. CLEMENS RICHTER, who, writing from San Francisco, has made an elaborate analysis of the conditions in which aneurism attains so striking a prevalence, as it does in, that city. In doing this, he has examined, among other things, the nativity of the citizens of San Francisco, and compared the ratio of the cases of aneurism there with that which is found

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in the countries and parts of countries fro
they come. He has also endeavored to s
the difference between the two figures, whi
striking, indicates that conditions peculiar
that city are to be credited with a special
in the production of disorders of the circul
paratus and of aneurism. San Francisco
largest death rate from aneurism of any pa
world, and the first point which Dr. Richte
is that the excess is proportioned to the
foreign-born population. But that these f
do not bring any special predisposition w
appears from the statistics of the places fro
they come, where the proportion of aneurism
less than in San Francisco. The reason fo
seeks for in the extraordinary physical
which emigrants in California are subjected
habit of drinking stronger spirits than th
accustomed to at home. So far as Californi
cerned, this seems to confirm the old belief t
cular excesses, so to speak, when committed
who have, from syphilis, alcoholism, or end
a predisposition to giving way of the wal
bloodvessels, contribute largely to the pr
of aneurism.

But the difficulty of arriving at a satisfact
eralization from the evidence in regard to t
ter is apparent to anyone who examines the
carefully. It is as easy to charge syphilis a
holism now, as it was formerly to charge g
being a predisposing cause of aneurism. I
we come nearer and inquire what proof the
this is so, we find it hard to establish the fa
HAMILTON, in a paper in *The American Jour*
Medical Sciences for October 1885, has re
the singular, but consistent opinion and pr
Baron Larrey, who believed that aneuris
be due to a syphilitic ulceration of the inne
an artery, and gave mercury to effect a cu
there is no author who has made anythi
demonstration that syphilis can be conside
frequent cause of aneurism, and observatio
in hospitals containing large numbers of sy
point quite the other way. The same is tr
gard to alcoholism. Dr. Hamilton has colle
testimony of a number of medical men in c
homes and asylums for the inebriate, all of w
sert that aneurism has exceedingly rarely cor
their observation. One letter to Dr. H
states that the writer had treated over ten t
inebriates, and had never seen anything lik
eurism. Such testimony leaves little groun
tributing to the use of alcohol a predispo
aneurism.

Then, as to the influence of hard labor,
seem as if a wide application might be give

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THE RELATION BETWEEN THE DEVELOPMENT OF THE ROUND LIGAMENT AND THE CONTRACTIONS OF THE UTERUS.

FREUND'S *Gynäkologische Klinik*, published recently at Strassburg, contains a brief contribution from DR. HOMBURGER upon the relation between the strength, or development of the round ligament and the action of the uterine musculature.

Dr. Homburger refers to the three factors which enter into the question as to the favorable progress of a labor, viz,, the bony passage, the soft parts of the pelvis, and the size of the child. He observes that the means by which we ascertain the size of the child, and the condition of the uterine musculature are as yet very uncertain. So far as examination of the latter is concerned, the result obtained is incomplete, since only one side of the uterus can be palpated.

Professor Freund first suggested a possible relation between the thickness of the round ligament and that of the uterine muscular wall. The office of the round ligaments has been recognized as contributing, in the latter part of pregnancy, to the descent of the fœtal head into the pelvic cavity, and, in labor, as drawing the fundus of the uterus forward, and assisting the pressure of the ovum upon the os uteri during labor pains. But hitherto, no one has sought from the development of these ligaments to make a prognosis as to the progress of the labor.

Dr. Homburger states that in almost every pregnant or parturient woman the round ligaments can be felt through the abdominal covering; and especially the left ligament, it generally having a greater circumference, and being more distinct than the right. In examining 270 women, he failed to feel them in only two. He further states that there is a relation, on the one side, between the development of the round ligaments and of the uterine wall, and, on the other, the forces of the "contractions." One can, if there be a well-developed ligament and uterine musculature, reckon upon vigorous uterine contractions. Very weak contractions never come with a strong ligament. His conclusions were drawn from numerous cases. In eighty-one where the ligament was found quite thick, there were only two which showed defect in the labor activity. In twenty-six cases where the ligament was moderately thick, there were only seven in which the contractions of the uterus were fully normal.

In deciding as to the normal action of the uterus, one finding the normal ligaments unequally developed, this being usually the case, selects that which is the thicker, in order to predict from it the character of the uterine contractions. Further, in this decision a very positive preference is to be given to the examination of this ligament over palpation of the uterus.

Why the left round ligament should be in almost all cases larger than the right, is not easily explained. Certainly the former is more readily examined than is the latter, for the pregnant uterus usually undergoes a partial rotation by which its left side is thrown more toward the anterior abdominal wall, while its right recedes posteriorly. This rotation is probably derived from an embryologic condition; for, when Müller's ducts are brought in apposition for the development therefrom of the uterus, the left duct is somewhat further in front than the right, because thrust forward by the terminal portion of the intestine at the left, and fusion takes place in an oblique position. This normal rotation of the uterus in pregnancy may cause increased strain upon the left ligament, and hence its development may be greater than that of the right ligament.

REVIEWS.

MICRO-CHEMISTRY OF POISONS, INCLUDING THEIR PHYSIOLOGICAL, PATHOLOGICAL, AND LEGAL RELATIONS; WITH AN APPENDIX ON THE DETECTION AND MICROSCOPIC DISCRIMINATION OF BLOOD. ADAPTED TO THE USE OF THE MEDICAL JURIST, PHYSICIAN, AND GENERAL CHEMIST. By THEODORE G. WORMLEY, M.D., Ph.D., LL.D., Prof. of Chemistry and Toxicology in the University of Pennsylvania. With ninety-six illustrations upon steel. Second edition. 8vo. pp. 784. Philadelphia: J. B. Lippincott Company, 1885.

THE dominant and lasting impression produced by an examination of this work, is a conviction of its absolute trustworthiness. The work bears direct internal evidence of the careful verification of literally all of the principal tests and methods given. An illustration, and one by no means unimportant, of the reliability of the book is seen in the fact that the numerous citations of medico-legal cases are drawn exclusively from the official records.

To those already acquainted with either edition, any mention of the exquisite delicacy and accuracy of the plates which illustrate the volumes is needless. They bear the same relation to the classical drawings of Funke as did these latter to the designs of earlier observers.

The work has been thoroughly revised and much enlarged in matter, especially by the addition of illustrative cases, largely American, and by new tests and methods for recovery of poisons from organic mixtures. The more important additions to the work in its present form are seen in the full appendix on the chemical recognition and microscopical discrimination of blood, and in the chapters on the Ptomaines and on Gelsemin. Three of the sixteen steel plates, together with a colored plate of the blood-spectra (chiefly remarkable for the accuracy of its measurements) are also new. Throughout the book the new chemical nomenclature has been substituted for the old.

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SOCIETY PROCEEDII

NEW YORK COUNTY MEDICAL AS

Stated Meeting, October 19, 18

THE PRESIDENT, CHARLES A. LEALI
IN THE CHAIR.

DR. FREDERIC S. DENNIS read a paper

FRACTURE OF THE PATELLA, WITH ILLU CASES.

It was devoted to the treatment of this wiring together the fragments, the proce revived by Mr. Lister, and Dr. Dennis saic to present all the arguments both for anc method. It was first performed by the l Rhea Barton, of Philadelphia, in 1834, ar by McClellan, Logan, Gunn, and other surgeons thus being the pioneers by many as in a number of other important operatio

There are at present two classes of surg present surgical opinion on this subject. composed of those who regard it as a perfec procedure, and, when performed with prop precautions, unattended with danger. noted, however, that previous to the year cases out of forty-nine had terminated fat six suppuration and anchylosis had followe tion. Since 1883, however, much better been noted. He was unable to state the e of operations which had been done, but a would place them at more than fifty, and i of cases no patient had died. Out of the fi tion had been reported in three; but one o case of compound fracture of the patella then it is to be expected that there will be a

The second class of surgeons is compos who are of the opinion that this operation i justifiable on account of the great risk incur ing the knee joint, and who claim equally for the older methods.

Dr. Dennis stated that personally he had sixty cases of fracture of the patella altogeth previous to adopting the operation of wiri ments together, he had obtained the best the method of the late Dr. James R. Little, of Paris. He had seen only a few cases, hov the union was osseous and the fracture of t perfectly restored. Having remarked that tained as good results as with the method o fragments, he exhibited a specimen of bony fractured patella, which he said he believed one of its kind. It came from a case whic treated by one of the older methods, and nection he referred to a patient now under St. Vincent's Hospital, in whose case, altho 88 years of age, bony union had been s then stated his firm conviction that moder surgery could show as its results both osseou perfect joints, which every surgeon knows t of obtaining by any of the older methods.

The metallic suture in fracture of the with certain restrictions, an ideal operation.

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the operation had nothing whatever to do with the fatal result. Within twenty-four hours he had two cases of fractured patella in different hospitals. One of them died in six days, and at the autopsy the joint was found to be perfectly aseptic; death having been due to delirium tremens and Bright's disease. The specimen from the case which he now exhibited was entirely unique, he said, as it showed firm bony union in only six days after the operation. No callus was found, and the union was analogous to primary union in the soft tissues.

Second, the superior results as regards the functions of the limb and the joint. Under the use of the older methods a separation of the fragments of half an inch was regarded as a very good result, and Malgaigne stated that he had never seen a perfect result after fracture of the patella. Dr. Dennis having enumerated a long list of evils which are likely to follow this accident when treated by the former methods, claimed, in contrast, that with wiring the fragments together a perfect joint, with perfect restoration of usefulness, can be obtained.

Third, the greater rapidity of repair. In a case of his own the patient was walking about in eight weeks, and in one of Dr. Phillips's, in three weeks and three days; while a patient of Dr. Hinton's walked nearly a mile at the expiration of six weeks. He believed that, as a rule, it will be found that in two weeks union is sufficiently firm to enable the patient to walk. This gain of time is certainly a very important matter, not only to the day-laborer, but to the professional and business man also. Formerly, however, the patient was laid up for at least three months, and the limb was not strong for two years.

It is true that the Academy of Medicine in Ireland and Société de Chirurgie have pronounced against the new operation; but he has no doubt whatever that the tide of professional opinion will soon turn in its favor. The case is altogether analogous to that of abdominal section in surgery, in regard to which such a complete revolution of sentiment has occurred. It has been stated that the knee-joint is liable to the formation of osteophytes after this operation; but this is merely a fanciful objection. Another objection put forth is that rarefying osteitis is likely to occur, but he has never seen such result.

The conclusion of the paper was devoted to a description of the technique of the operation. In the first place, he said that wiring the fragments ought not to be undertaken immediately after the accident in simple cases, as it is liable to set up inflammatory action under these circumstances. It is better, therefore, to wait a few days. In compound fractures, however, the operation is to be performed at once. The strictest antiseptic precautions are invariably to be observed, and among them are the free use of iodoform and ether, the application of bichloride solution (1 to 2000) to the parts above and below, and the continuous irrigation of the wound with the same solution from the beginning to the end of the operation. Personally, he prefers the transverse to the longitudinal incision, which is the one more commonly adopted. The joint having been laid open, all blood-clots are to be removed, and the anterior fibrous capsule elevated from between the two fragments. The holes in the bone for the sutures, as had been mentioned, are bored with an Archimedean drill, the passage of the wires being assisted by a groove; no harm comes from leaving the wires in the wound. After the latter is closed, a plaster-of-Paris splint is to be applied, and the patient kept in bed.

Dr. Dennis gave his conclusions somewhat as follows:

(1) In compound fractures of the patella there is not the slightest doubt of the propriety of the operation. The cases of Dr. Fowler, himself, and others demonstrated its practical usefulness.

(2) In recent and old fractures, under ordinary circumstances and with the patient's consent, it is wholly justifiable.

(3) In debilitated patients and those suffering from organic diseases, the operation should not be performed.

(4) It is not an operation which can be indiscriminately performed. It should never be undertaken by the inexperienced or by those who have not the most complete faith in the efficacy of antiseptic surgery.

(5) Success depends on the most thorough carrying out of the minutest details of the antiseptic procedure.

(6) While the number of cases is as yet limited, the more and more extended adoption of the operation by the surgeons of America will soon cause it to be universally regarded as a most marked advance in treatment.

Dr. Dennis then proceeded to exhibit a number of very interesting cases. The first was his own case of compound fracture, where the patient fell from a scaffold. At the end of two months he said he had walked well, and at present it is evident that he has the most complete use of the joint and limb.

The second case was that of Dr. Fowler, of Brooklyn. which was the first case of compound fracture of the patella treated by the new method in this country, and which, he said, undoubtedly marked an era in the surgery of America. Dr. Dennis's case, just referred to, was the second. Dr. Fowler's patient was a female, and it was seen that she had a most useful limb; being able to bend it to more than a right angle at the knee. In this case Dr. Fowler had allowed the drainage-tube to remain in position for two weeks, while in his own it had been withdrawn at the end of three days.

The third case was that of a man who had fractured his patella less than three weeks ago, and yet the wound was entirely healed, and he was able to walk about on crutches. Three other recent cases were also exhibited, and all are doing well. Dr. Dennis expressed his regret at not having been able to present, in connection with this group of cases, that of Dr. Phelps, in which both patellæ were fractured. This patient, he said, is now walking about the streets as well as ever.

DR. FOWLER, of Brooklyn, being called upon by the Chair, said that he was always ready to say something in favor of conservative surgery, and he believed that the operation to which Professor Dennis had invited attention this evening is conservative surgery pure and simple. His own case of compound fracture, which had been referred to and exhibited, was a peculiar one from the fact that the upper fragment became necrosed, and had finally to be removed. After the operation of

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wiring the fragments together, he had found it to have two drainage-tubes in position, and in allowing them to remain for two weeks wa believed it to be less dangerous to do so tl obliged to resort to frequent dressings. H that in antiseptic surgery as little change of as possible is highly desirable, and in this the first dressing was not changed at all un piration of fourteen days, when the drainage-t removed. He had also employed the same n cases of exsection of the knee and other la: which were cured in twenty days, with but change of dressings at the end of the tenth da the Archimedean drill employed by Dr. Denn greatly impressed with its simplicity and u but even if no such contrivance be made boring the holes, he could not see how such a could be required for this, as Dr. Dennis had i In his own case he had used an ordinary c: brad-awl, and the operation had not been a one. For introducing the wire through the hol employed a canula.

In this operation it is of great importance t the fibres of the aponeurotic surfaces from be fragments, as, if left there, they are extrem to prevent bony union. In cases of second the method of McEwen, to which he beli Dennis had not referred, and which consist ing saw-toothed incisions of the quadriceps is of great service in bringing the fragments It is the ordinary practice to hammer the tw of the sutures down into the periosteum, but doing this he had suggested turning them ir the fragments, as he believed this will give r irritation. In some cases he had also made rubber bridge beneath which the wire sutures withdrawn entirely after they had served their if required, and he considered this to be a point.

In conclusion, he said he could only expres cere appreciation of the efforts being made i tion with this operation, to prove beyond qu superiority of the antiseptic system of surgery, considers the most inestimable boon in this d of medicine since the introduction of anæs means of chloroform and ether.

DR. BURGE, of Brooklyn, remarked that he no experience with the heroic measures which the subject of discussion. He had hitherto himself that he had been able to bring the sir older methods of treating fractures of the pat greatest perfection; but after listening to what been said, he felt like a junior student, and h hesitate to assert that he believed he had deri benefit from what he had heard here than have done by a three months' trip to Europe.

DR. F. FORNÉ, staff-surgeon of the French N stationed on a man-of-war in New York Ha pressed through Dr. J. W. S. Gouley his pl being present this evening, and his convict what he had seen and heard, of the propri operation of wiring the fragments together i simple fracture of the patella.

DR. H. M. BIGGS, of the Carnegie Labora gave some

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tion of a carefully prepared microscopical specimen, in regard to

NUMMULITES, FROM THE FOUNDATION STONE OF CLEOPATRA'S NEEDLE AT CENTRAL PARK, REMOVED FROM EGYPT TO NEW YORK IN 1880.

When the base of the obelisk was being placed in position, he said, a broken off-piece was given to Dr. P. C. Cole, who skilfully prepared this beautiful translucent specimen, one inch square, and presented it to me. I can easily remember the time when the huge piece of rock now supporting the obelisk was transported through the city, passing by my solidly built residence on Fifth Avenue, which it shook from foundation to roof, as the wheels of the heavy truck rolled on the Belgian pavement. This stone is called nummulitic limestone. It is of the middle Eocene period, and consists of limestone composed of nummulites, which are held together by a matrix formed of the comminuted particles of their shells, and of smaller foraminifera. The pyramids are built of this rock, which was taken from the Mokkadan Mountains in Egypt.

This nummulitic limestone, Dr. Carpenter informs us, is so vast in extent that it is often 1800 miles in breadth and sometimes several thousand feet in thickness, and it may be traced from the Atlantic shores of Southern Europe and Northern Africa, through Western Asia, to Northern India and China, and likewise over large areas in North America. It plays, as Sir Charles Lyell states, a far more conspicuous part than any other tertiary group in the solid framework of the earth's crust. Yet, when this extensive geological structure is examined microscopically, it is found to consist of minute shells, impossible for the human hand to trace, showing the fossil remains of one of the early evidences of animal life, a minute protozoan, characterized by having a calcareous shell perforated by pores or foramina. The older we live, and the more we investigate, the more do we behold the numerous mysteries yet to be solved. Our profession demands constant thought and ever-active brains. Life truly is short, but art is endless.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Stated Meeting, October 7, 1885.

THE PRESIDENT, J. M. DA COSTA, M.D., IN THE CHAIR.

DR. DA COSTA offered some

REMARKS ON THE TREATMENT OF ROSE COLD AND HAY FEVER BY COCAINE.

(See page 477.)

DR. HARRISON ALLEN remarked that he was glad to hear Dr. DaCosta state that the effect of cocaine is inconstant within a narrow range in different individuals. He had observed the same fact. In endeavoring to account for it, he had concluded that the difference lies in peculiarity of the erectile tissue. Those persons in whom the tissue is sparsely developed are, he thinks, less susceptible to impression by the remedy than are those in whom it is well developed. He recalled one case in which a four (as well as an eight) per cent. solution was used persistently without benefit. If, then, one has under observation nasal chambers with mucous membrane exhibiting but little erectile property (changing very little under any of the conditions, such as galvanism, which ordinarily constrict the capillary network), the remedy will give but little relief. He had had three such cases under care during the past summer. The shrinking up of the erectile masses places the nose in what may be called a normal condition, the air passing through at a normal rate and the irritated surfaces not touching each other. One of the cases in which relief was not secured, was that of a lady suffering from the annoyance due to complete occlusion. After applying the cocaine for half an hour there seemed to be a little relief, but it lasted only a short time. Nothwithstanding these failures he had no doubt that further experience will show the truth of the author's statement, that we have in cocaine a remedy which will, in the majority of cases, give relief.

DR. H. C. WOOD said that, in this connection, the observations of Dr. Lyons, of Detroit, may be of interest. He has shown that there are probably two or three alkaloids in cocoa leaf, and that the commercial alkaloid, cocaine, not rarely is composed of more than the one alkaloid, ecgonine, and perhaps a third alkaloid is present. The unexpected results sometimes obtained from the therapeutic use of cocaine may possibly be due to the presence of one of these other alkaloids.

DR. RUSCHENBERGER asked for information as to whether or not caffeine is capable of taking the place of cocaine.

DR. H. C. WOOD stated that he had made some experiments with caffeine on the eyes of patients, and found it to be without effect.

DR. ORVILLE HORWITZ then communicated, through Dr. Da Costa, his

OBSERVATIONS ON SUNSTROKE AND HEAT-EXHAUSTION.

(See page 485.)

DR. H. C. WOOD said that the use of musk, as detailed in the paper just read, he believed to be new. Antipyrin has, however, been used in one of the New York hospitals, and a paper written thereon by the resident physician.

There is one point which is worthy of consideration by hospital authorities. He has noticed himself, in experiments on animals, that time is of the utmost importance in the treatment of sunstroke, and our clinical experience accords with this. If the moment the animal became unconscious, he reduced the temperature by cold, the animal invariably recovered; if, however, it was left for ten or twenty minutes, reduction of the temperature caused benefit, and usually return of consciousness, but there were almost always marked signs of an impaired nervous system, and in a large proportion of cases death from paralysis. In the New York Hospital, antipyrin was given to the ambulance surgeon, and thus the remedy could be administered at once. He thought that in very warm weather the hospital ambulance should be provided, not only with antipyrin, but also with ice, and no time would be lost, the remedies being applied as the patient was being brought to the hospital. The patient could be half undressed and rubbed with ice, and antipyrin could be used hypodermically.

Very few writers report the time which has elapsed before treatment after the sunstroke; and without such

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cases quoted in the paper under the initial D, had been in their termination in his care, and they had struck him as bearing upon the question of contagion closer than any he had ever encountered.

DR. POST said that one interesting feature of the tumor upon which he operated was, that altough the morbid growth did not extend into the antrum it had eroded its anterior wall so that he could pass his little finger into the cavity.

DR. SANDS was able to add another case to the list given by Dr. Hall, one in which malignant disease occurred in more than one member of the same family. A young man came to him three years ago on account of a swelling on the right side of the face over the spheno-maxillary and malar regions. It seemed to be due to the development of a tumor which was very deeply situated, and which, besides causing projection of the side of the face, was attended with a protrusion of the eye. He suspected the existence of a polypus of the spheno-maxillary fossa, and with a view to remove it he raised the malar bone, but was disappointed on discovering that, although a tumor was present in the spheno-maxillary fossa, it was not a polypus, but was firmly embedded and could not be removed. The patient was known to be living six months ago, in a state of great misery, the tumor having reached a very large size. About six months ago a brother of this patient was brought, in whom a tumor of large size had developed in the pharynx, within a few months. It filled the pharyngeal cavity and although it was not firm in consistence it was firmly attached. The disease was evidently malignant. The patient's general health had become very much impaired, and Dr. Sands was obliged to decline surgical interference. Probably both patients are now dead. They lived in the same house in Westchester County, and often occupied the same room.

It seemed to him that such cases, although they cannot be accepted as proving the contagiousness of malignant tumors, indicate very clearly the direction in which future inquiries should be made, in the hope of confirming the hypothesis of the parasitic nature of these morbid growths; for, certainly there is no disease not already proved to be parasitic, which seems so likely as cancer to have such a mode of origin.

DR. HALL remarked with reference to the remarkable absence of apparent contagion in literature, that it may be explained by the fact that, if the idea of specific poisons for malignant tumors is accepted, probably all cases recorded as of hereditary origin will fall under the head of infection. In tubercle practically the same thing is occurring now. Formerly all cases were attributed to heredity, whereas now they are very largely attributed to infection. Congenital tuberculosis is extremely rare, and while congenital carcinoma and sarcoma occur, they are also extremely rare.

Adjourned.

CORRESPONDENCE.

ANOTHER RESIGNATION FROM THE CONGRESS.

To the Editor of THE MEDICAL NEWS.

SIR: My attention has been called to the fact, that my name has been twice published in your journal as, so far as is publicly known, not having declined to accept office under the new Committee of the International Medical Congress.

I beg that, as soon as possible, you will make the fact public that, on August 31, 1885, I addressed a letter to Dr. John V. Shoemaker, in which I declined to have anything to do with the Congress under its present organization.

It would be especially gratifying to me if the date of my declination, as well as the fact of it, could be mentioned in your columns. Very respectfully yours,

JOHN G. CURTIS, M.D.

127 EAST THIRTY-FIFTH ST., NEW YORK CITY,
October 23, 1885.

HYDRAMNIOS.

To the Editor of THE MEDICAL NEWS.

SIR: In your issue of August 22d there is an abstract of several cases which have occurred of this most curious condition. A great many theoretical explanations of it have been given, but no one, so far as I can see, has yet drawn attention to the fact that every recorded case, —at least it is certainly true about all the cases that I have seen recorded, and all the cases which have occurred in my own practice—has been in twin pregnancy. Until this remarkable fact is got over, all other explanations may go to the winds. The cases have come to me with a single exception as ovarian tumors of rapid growth, and besides those that I have seen I know of several that have been most unfortunately tapped under the impression that they were ovarian cysts.

I am, sir, yours, etc.,

LAWSON TAIT.

BIRMINGHAM, October 5, 1885.

A METHOD OF MAKING THIN KID FOR TESTING EYE INSTRUMENTS.

To the Editor of THE MEDICAL NEWS.

SIR: On account of the great difficulty at times of obtaining the very thin kid that is used for testing eye instruments, I was led to search for a means of supply more accessible than that which has heretofore been available. After many trials, I devised the following method: As this kid consists principally of the epidermic layers, a piece of kid is chosen that has as thick an epidermis as possible (one that has not been scraped too much), and by means of a knife or finger-nail the epiderm at one of the corners is torn or split from the skin beneath. By great care, and working with the thumb-nails, the whole epiderm can be stripped off in one piece. According to the skill exercised, and the adaptability of the skin, will be the results obtained. The small pieces of true skin which are found adhering to the epiderm can be scraped off with a blunt knife, thus leaving a piece of kid as fine as the best Paris make. I was assured by a professional cutter that the kids used here is made by shaving, as he said he could see the marks left by the tool. I believe the kid we use is obtained from the instrument makers of Paris, and at Charriéres', in Paris, I was assured that they depended for their supply on an old man who only made the rounds at intervals. So you see the source of supply is exceedingly limited. Enclosed please find a sample.

G. G. DAVIS.

1817 MT. VERNON ST., PHILADELPHIA.

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BANDAGE FOR THE FIXATION OF THE HUMERUS AND SHOULDER GIRDLE.

To the Editor of THE MEDICAL NEWS.

SIR: In your issue for August 29, 1885, Dr. Dulle describes "A New Bandage for Fixation of the Humeru and Shoulder Girdle." I can add my testimony tha this method of bandaging is a most excellent one fc many shoulder injuries.

For several years past I have used it at the Massa chusetts General Hospital and in private practice. It essentially a figure of eight around the axilla of the we side and the elbow of the injured side, crossing over th injured shoulder. Its action in bringing pressure upo the top of the shoulder and at the same time driving th humerus strongly up toward the socket, makes it th treatment par excellence for cases of dislocations of th acromial end of the clavicle, for it holds the clavicl down and through the humerus it lifts the scapula unt the acromion can easily be brought on a level with th clavicle.

I have had the opportunity of applying it to thre cases of this rare injury and in all of them the recover was complete without deformity. Yours truly,

A. T. CABOT.

BOSTON, October 24, 1885.

NEWS ITEMS.

WASHINGTON.

(*From our Special Correspondent.*)

THE INSPECTION SERVICE ON THE CANADIAN FRO TIER, established by the State authorities of Michiga for the prevention of the introduction of smallpox int that State, has, at the request of the Governor of th State, been assumed by the Marine-Hospital Servic The reason for the change is the small fund at the con mand of the Governor, which may be required for oth purposes. The Governor, in notifying the Secretary the State Board of Health of the fact that the servic will not be any longer supported by the State, compl ments the Secretary upon the fact that up to the prese time no case of smallpox originating from Canada ha occurred in the State. Surgeon W. H. Long, of th Marine-Hospital Service, has assumed charge of th inspection service in that State.

The Keeper of the Life-Saving Station at Osweg N. Y., has been informed by the District Superintende that all tugs have been requested to make signal b whistle whenever they have Canadian vessels in to and that upon hearing these signals the surf-boat is be launched and will carry the Inspector of that static to the vessel, and if the vessel is found to be infected will be towed to quarantine, and the usual precautio taken. The Inspector lives at the Life-saving Statio and is ready at all hours to board vessels. A comple system of inspection checks is in use, which obviat the annoyance to passengers caused by reinspection the different stations, each passenger inspected beir furnished with a card giving full particulars of the la inspection.

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both written and practical; 6th. The endowment of medical schools so as to secure fixed salaries for the professors, who would then cease to have any pecuniary interest in the size of their classes.

After highly complimenting McGill for having adopted many of these reforms years ago, Provost Pepper went on to say that, although much valuable instruction can be imparted by lectures, they cannot train the hand and eyes of the student in the investigation and recognition of disease. It is by means of the various laboratories of anatomy, chemistry, physiology, and pathology, and later in the wards of the hospital, that this, the most important part of the education of a medical man, is acquired. It is by these means alone that physicians can be produced who are neither routinists nor theorists, but clear-sighted, practical students of nature, as revealed in the myriad forms of morbid action and in the no less numerous agencies for the cure and prevention of disease.

The urgent necessity for more endowments of medical schools was dwelt on, and the establishment of competitive scholarships advocated. The Professor said that, although tens of millions, during the last fifty years, had been given for the support of classical and scientific education, the general movement for the endowment of medical schools is of very recent origin, and the number of large benefactors to such schools can be counted on one finger. The movement has begun, however, and he confidently expects to see it advance till deserving medical schools are fully endowed.

He alluded to the researches of recent years upon the nature and causation of consumption, diphtheria, and of cholera, and said that such investigations must be carried on in such laboratories as are now possessed by McGill University; but, in addition to the laboratories, men are wanted who are willing to devote themselves to those scientific researches; these can only be obtained by the endowment of fellowships tenable for one year or more. It may, he continued, seem extravagant to provide spacious rooms, expensive outfit, and large endowments, merely for the sake of the study of a few of the lowest and most minute forms of organic life; but, if such study leads to the discovery of the true cause of any one of those great diseases, it will be of more value to the world than all the gold fields of California.

In conclusion he said that, although he looked with proud satisfaction on such buildings and laboratories of equipment as those before him, we must not remain contented; the progress of medical science is rapid and unceasing, new fields of investigation are being continually opened up and new methods of research introduced; enlarged facilities will continue to be required from time to time, and ere long other spacious buildings must be erected. We advance with increasing confidence because assured of the coöperation and support of an enlightened public sentiment, and here in Montreal such confidence is not misplaced.

At the conclusion of his address Provost Pepper was loudly cheered.

PROF. OSLER, of Philadelphia, also gave a short address which was rapturously applauded by his old students. He dwelt on the great importance of laboratory work and the necessity for endowed chairs of fellowship, to enable young graduates to do original work. He congratulated the Faculty on the magnificent building they had erected, and contrasted the present condition with that of fifteen years ago when he was a student of McGill. Then the only practical laboratories were those of anatomy and chemistry; now in the new building, laboratories of practical physiology, pharmacy, pathology, and histology, had been added. He concluded by saying, that in the sixty odd years which had passed since the founding of McGill, the labors of those in charge had been extensive, and the work which had been accomplished had been grand, and he prophesied that in the next half century the progress will be equally grand if not grander.

The Hon. Senator Ferrier, Chancellor of the University, Sir William Dawson, Principal, Dr. R. P. Howard, Dean of the Medical Faculty, and others, then addressed the meeting.

DR. HOWARD said that the money taken from the $100,000 endowment fund of the Medical Faculty for the erection of the new building, had been only lent to the University, and that at some future time it would be returned to the Faculty.

After the speeches the guests were escorted over the building by the members of the Faculty, the students meanwhile enlivening matters by singing stirring college songs.

In the evening the Faculty entertained the benefactors, governors, and invited guests, at a banquet given in the Windsor Hotel. It was a brilliant affair and brought out some very fine speeches from prominent men.

The following is a short description of the present medical building, which is situated on the grounds of the University.

The main hall on the first floor is 136 feet long with a room 28 feet long at the end, giving a total length from front to rear of 164 feet. The whole building covers an area of about 14,000 square feet. On the ground floor on the left-hand side of the entrance, is the library, which contains over 10,000 volumes. This department has been enlarged by an addition of a room 30x22 feet. On the opposite side of the hall is the museum, the capacity of which has been almost doubled by the addition of a large room, formerly the practical chemistry laboratory. On the same flat is the new pharmacological laboratory fitted up for demonstrating experimentally the action of drugs as well as for giving courses in practical pharmacy. Opposite this laboratory is the students' reading-room. Going still further along the hall we come to the physiological laboratory (45x21) with the private room of the Professor, adjoining.

We now come to the new chemical laboratory (45x35), which is fitted up to accomodate between 75 and 100 students. The balance room and private rooms of the Professor of Chemistry and his assistants, open off the laboratory. Opposite the chemical and physiological laboratories is the new physiological and chemical lecture-room. The room is hexagonal in shape and 76 feet wide. It is lighted by windows and skylight and is capable of seating 275 students. Beneath the seats of the lecture-room are several small rooms allotted to the professors.

On the second story opposite the main staircase is the dissecting-room (72x31). This room is twenty feet high and well ventilated, is furnished with twenty tables,

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and has hot and cold water. The light is being supplied by eleven large windows an lights; opening off this is the bone room and rooms of the demonstrator and his assistants. the dissecting-room is the new histological lab has, commencing about its centre two stages the other, on each stage are long tables, pro microscopes; this arrangement is to prever using the front tables obstructing the light; c are four tables ten feet long. The room i with thirty microscopes, also microtomes an paratus.

In the annex on this flat is a large le (56x46) capable of seating comfortably 30 Opening off this theatre is the private room fessor of Anatomy and the anatomical muse

Under the lecture-room seats are two large feet wide and 8 feet high and 25 feet long, w one is for pathological work and the other f dents' medical society. At the end of the pathologist's private room, and above, two s specially constructed for culture-rooms. The is used for laboratories, cloak-room, and jani ments.

The whole building is heated with hot-wat and provided with hot and cold water and ele

The additions made to the medical scho one of the largest and most complete on this There is certainly no school building to com in the Dominion of Canada.

One good feature about the McGill sch while it is extending its building it is also course larger and more complete. It now re full six months' sessions and one three mont session before graduation. A good prelimin nation it has had from its foundation.

The other examinations are very practical ter. Those in clinical medicine and clinical conducted at the bedside, and in anatomy secting subject. The examination in other b histology, chemistry, physiology, are equall and oral, as well as theoretical and written tended, in the near future, to increase the compulsory summer sessions, which are chie to practical work in the laboratories and hos

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CONDENSED RULES GOVERNING STATE H SPECTORS OF TRAVEL AT PORT HURON AND MICHIGAN. — The Michigan State Board issued, on October 15, the following conder

1. All travellers and immigrants coming gan from Ontario shall be subject to ins an officer appointed by the Michigan State Health.

2. All baggage, household goods, and ot belonging to people moving into the Unite to suspected travellers, must be disinfected tering the country.

3. All immigrants and suspected travelle not present proper evidence of recent vac other immunity from smallpox, must be before entering the State.

4. After October 15, 1885, no passenger c from Montreal or other infected district shall to enter the State without being properly disi

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THE MEDICAL NEWS.

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ORIGINAL ARTICLES.

THE HYGIENE OF THE ESKIMO, WITH SOME OBSERVATIONS ON THEIR THERMOMETRY TO DETERMINE THEIR PHYSIOLOGICAL NORM.

BY EDWARD H. GREEN, M.D.,

P. A. SURGEON, U. S. N.

DURING the cruise of the United States Steamer "Thetis" while in the Arctic, engaged in the relief of the Lady Franklin Bay Expedition, I made some observations on the general hygienic surroundings of the Eskimo; as to their food supply, their mode of procuring it, and the hygiene of their habitations. I did this as preliminary to making some observations with the clinical thermometer to determine whether or not a continuous existence in low temperatures had any effect in reducing the norm of physiological temperature. These observations were made with difficulty, owing to the non-coöperation of the subject in many instances, and only include some thirty-seven cases, but sufficient to make some deductions therefrom.

Our contact with the natives included those met with in Disco, Greenland, a settlement containing about 225 souls; those in Upernivik, numbering about 300; those in Tessuisak, about 80, and a nomadic tribe off Wostenholme Island, comprising about 25; these latter presented the pure type of Eskimo, without any Danish admixture.

The inhabitants of Disco, Upernivik, and Tessuisak are colonized, and live under Danish influence and laws, and may be termed semi-civilized. Most of them show evidences of Danish blood, being light in color, with a light tinge of hair and blue eyes, mostly short of stature, and well developed physically. Disco is in latitude 69° N.; Upernivik in 70°50', and Tessuisak in 72°. The range of temperature for the year is about the same in the three places. Through the kindness of Gov. Elbong, of Upernivik, I got the monthly mean temperature for 1883, and he said that it represented about the average according to his experience of twenty-five years in the country. In January, the average for the month was —18° F.; for February, —22° F.; for March, —27°; for April, +2° F.; for May, +15°; for June, +22°; for July, +29°; for August, +36°; for September, +28°; for October, —5° F.; for November, —12°; for December, —16°.

These observations were made with a thermometer having the Réaumur scale; the correctness of the instrument and the readings must be taken for granted; it is sufficient to show that the natives live in a temperature with a yearly average closely bordering on zero Fahrenheit. Their food is almost wholly animal, as it is only by forced cultivation and the greatest care that anything vegetable is raised as an article of diet, and this is only done by the Danish officials, in little improvised hothouses, the yield being scarcely sufficient to pay for the labor. In this way lettuce, turnips, and dwarfed potatoes have been cultivated. The different varieties of seal, principally the bearded variety (phoca barbata), called the oog jook, the small seal or floe rat (phoca fœtidus), and the common or Greenland seal; together with the walrus and occasional bear, and several varieties of Arctic birds; together with a species of codfish, constitute the variety of their food that is yielded by the country; in addition to this, the Danish Trading Company sends out every year a sailing ship, which touches at the different trading posts, and leaves a supply of tea, coffee, flour, and sugar, in exchange for the furs, blubber, eider-down, and ivory that may have been collected. The Governor of each place supervises the distribution of these stores.

The Eskimo seem to have a convenient appetite; they can go without food for long periods, or eat five or six times a day, just as they happen to have it. They are improvident of food, and do not begin to lay in their winter supply oftentimes till it is too late, when they suffer from lack of it and appeal to the Governor, who obliges them to give him a tithing, which is left in reserve. It is said that were it not for this supervision, during severe winters the natives would soon become extinct from starvation. I have never seen a native eat more than what I estimated as five pounds of seal meat and blubber at a meal, though I have read of ten to fifteen pounds being a not unusual consumption at one sitting. They eat but twice a day as a regular habit, before going to bed, and almost as soon as they awake. From my limited observation, I would say that an adult consumes about eight pounds of solid food a day, subject to variations according to the amount of exercise and the external temperature, the small quantities of tea, coffee, and flour consumed at a meal scarcely require mention as factors in the food supply.

The natives of the Danish stations have better facilities for procuring their food supply than the wandering tribes farther north; some of the former are provided with rifles, of an ancient pattern it is true, but as they deem it a long distance to shoot at more than twenty or thirty feet, their ingenuity is spent on getting within close range of their game, and they generally secure it, if they fire at all. Besides, they are provided with small skin boats or kyaks, which are very light, but of great strength, and can be transported with great facility over the ice to open water. These boats have the javelin or spear as part of the outfit, and the Eskimo from early youth is trained to manage the kyak and throw the spear, so that they become exceedingly expert, and it is seldom that the hunter goes out in season without returning with his game. The Eskimo, on s

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a seal come to the surface for air, will, with a few strokes of the paddle, approach his kyak as near as possible; when the seal disappears beneath the surface a few quiet rapid strokes puts the kyak directly over the spot, then with his javelin poised he waits for the seal to reappear; should the head show itself above water within a distance of ten or fifteen feet, their aim is almost unerring. After the seal is struck, the head of the javelin is slipped off, and to it are attached about six fathoms of line, on to which a large bladder float is tied. The line and bladder are immediately cast into the water, and the seal carries them off until he is exhausted, then the line is hauled in and the seal at the end quietly dispatched with a small knife; not always quietly, however, for a large seal when wounded will often show fight, and wreck the kyak. The loss of life attending the hunt is quite considerable, as the frail skin boats are oftentimes cut through by the ice or swamped in rough water; the hands of the hunter are necessarily exposed, and many of them suffer from their being frozen during severe weather. They procure their fish by dexterously using a short line, and attaching a small ivory hook to it. They bob this up and down through a hole in the ice, and the unsuspecting fish that bite are thrown out on the ice; they have no system of netting.

The tribes to the north of the settlements, variously known as the Innuits, and called by Sir John Ross the Arctic Highlanders, are thrown entirely upon their own resources; their food supply is entirely animal in its nature, and their means of procuring it more restricted, as they do not possess either guns or kyaks, but simply a javelin tipped with ivory; they conceal themselves beside a hole in the ice where the seals come, and watch their opportunity of securing the game. Since Sir John Ross first described these people, they have been fast dying off, so that from several tribes numbering hundreds, they now scarcely number a hundred souls. The few seen by us represented men, women, and children, numbering twenty-five; they all wore long black matted hair streaming over their eyes and face, were well built physically, had greasy, shining, smiling faces, and seemed happy and contented; their articles of dress comprised but three garments, made of bear-skin, the rough untanned skin next to their own, a jumper or hood covered the body, short-legged pants from the hips to the knees, and boots made of bear-skin completed the outfit; in most instances the jumper and pants did not meet at the waist, so that an isthmus of naked skin for an inch or two was plainly visible; the same occurred at the meeting between the pants and boots; even though the temperature of the air was at the time +15°F., and sufficiently cold to me to make heavy clothes comfortable, they did not appear in the least distressed, and I have no doubt that exposed in the same way they endure temperatures below zero. In the coldest weather they wear thin under-garments made of the breasts of the eider duck.

The natives of the settlements procure, from the yearly visits of the Danish ship, cotton material with which they make their under-garments, so that the skin clothing does not come next to their bodies. The outer garments of the Eskimo in the settlements are made of the short-haired seal, and consist of but three pieces—hood, pants, and boots, with the cotton under-garments above mentioned.

We have now seen, in a general way, how these people procure their food, the nature of it, and the probable quantity consumed; how they dress, and the nature of the wearing apparel. The next inquiry is, how they live, or the general hygiene of their habitations.

In the settlements the abodes are permanent and fixed; they are constructed for the most part of stone and moss about five feet thick, the most pretentious having some woodwork about them in the shape of a door or a window, but most generally the approach to the interior of a hut is made through a narrow passage about four feet high, three feet broad, and five feet in length; through this one crawls, and at the end is found a hanging curtain of skin, which, on being pushed aside, admits you at once into the living room, which is a general kitchen, sitting-room, and bedroom for the occupants of the dwelling, who may number anywhere from six to twelve. The sleeping quarters are arranged along the sides of the room on raised platforms. The ventilation of the room is secured by the air coming in through the narrow passage and finding its way beyond the curtain, but this passage air is something beyond description in the way of odor, as the dogs generally collect in the passage for purposes of warmth, and the inmates of the household use it as a water-closet until the accumulations get troublesome from their quantity, and impede easy ingress and egress, when they are removed by the women. In many households the urine is collected, as it proves, after the ammoniacal fermentation takes place, an excellent detergent for cleansing the household cooking utensils. There is, fortunately, a hole in the roof of the dwelling, ostensibly to permit the egress of smoke, but as it is kept most sedulously stopped up most of the time it does not carry out its original design.

An ordinary dwelling possesses the following measurements: Height, eight feet, with a sloping oval roof; width, twelve feet; length, ten feet, which gives nearly 1000 cubic feet of air space. Were there no occupants at all in the rooms, the air would be highly objectionable, as there is but little chance for circulation; but with from six to twelve eating, sleeping, and performing other avocations of life; with the room filled with smoke from cooking seal meat and blubber, which also adds a very strong odor; with the smoke from the moss dipped in seal oil as a lamp; with the odor coming from the passage of filthy dogs and animal excreta, you get a combination that in point of impurity would be hard to equal; add to this the facts that they sleep in their clothing just as they have worn it during the day, and that general or even partial ablution is seldom or never indulged in, and the wonder is that they pass through infancy to childhood, to manhood, and in many instances to old age.

During the period of the year when the sun is above the horizon, their life is active and spent mostly outdoors. The men engage in the hunt; the women in preparing and dressing the skins, and making articles of wearing apparel. For the 115 to

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120 days in winter when darkness prevails, thei lives become sedentary, and the hygienic surround ings, both personal and that of the habitation, ar at their worst.

With the purity of the cold as a germicide, epi demic disease seldom prevails amongst them. Rheu matism, pneumonia, and a species of influenza con tribute most largely to the death-rate. The Gov ernor of each district keeps a list of births and deaths but not much reliance can be placed on their diag nosis as to the cause of death. Scurvy has beer known amongst the natives, but only during winter when the food supply has been very scant.

With these few general preliminary remarks a bearing on the results of the observations, it struck me that it would be of interest to take the tempera ture of as many cases as possible, together with the pulse, and determine whether or not the food supply being hydro-carbonaceous and heat-producing, would counteract the extraneous surroundings of cold and great exposure on people who have passed their whole lives in these high latitudes. It had been my inten tion to pursue a series of thermometric observation on the crew of the ship, had we remained in the Arctic sufficiently long to have experienced very low temperatures, so as to see the results of a tem porary residence, but the shortness of the cruise pre vented that being done.

The following table is made up of the cases ob served, twenty-two at Disco, twelve at Upernivik, and three amongst the tribe that visited the ship off Wos tenholme Island, in latitude 77°. The observation were all made with the same thermometer, which was corrected before leaving the United States They were made in the forecastle house, which wa always kept warm by a large stove. The native were such as visited the ship out of curiosity, or to barter little articles. The thermometer was placed under the tongue and left there for five minutes.

Cases observed at Disco, Lat. 69°. *At Upernı*

No.	Sex.	Apparent Age.	Pulse.	Tempt.	No.	Sex.
1	Male.	35	64	98°	1	Male.
2	Male.	18	68	98.3°	2	Male.
3	Male.	40	72	98.1°	3	Male.
4	Male.	24	64	97.8°	4	Female.
5	Female.	36	68	98.2°	5	Male.
6	Male.	60	66	98.2°	6	Male.
7	Male.	12	68	98.4°	7	Male.
8	Male.	24	66	98°	8	Male.
9	Female.	40	64	97.9°	9	Male.
10	Male.	50	60	98.2°	10	Male.
11	Male.	45	70	98.1°	11	Male.
12	Male.	30	68	98.2°	12	Male.
13	Male.	35	62	98.4°		
14	Male.	38	68	98°		
15	Male.	65	62	98.2°		
16	Male.	32	66	98.1°		
17	Male.	10	68	98.5°		
18	Male.	26	72	98.1°		
19	Male.	38	68	98°		
20	Male.	42	60	97.8°		
21	Male.	25	68	98.2°		
22	Male.	35	66	98°		

From an analysis of the foregoing table it will be seen that the results show but little or no variation from the general physiological temperature. In but three cases was the temperature found to be below

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our knowledge of liver and kidney disturbances, we know that an alkaline water has its share in producing disturbances of digestion, the result of which is the excessive production of lithic or uric acid, a fact sufficient to explain the frequency of uric acid concretions.

It is necessary to examine the food of these patients, as well as the climate in which they live, after making the statement positively that the water used by them is hard; that the river rushes swiftly through gorges cut in the limestone hills, hence it holds a large quantity of lime in solution, and this lime is not precipitated by boiling the water before using it to make the national drink "tea," but is simply made hot. We must bear in mind that foreigners living in this district for twenty, thirty, or forty years, do not develop the disease, and yet, while not a single case has occurred, they live under climatic conditions, which if they have anything to do with producing the disease, other things being equal, would produce it in them. The food of the foreigner is very different from that of the native, and he uses no water without boiling or filtering it. Not, however, with any idea that the water would produce the disease, but because the mountains from which drinking water is brought are used as burial places, the tillable land being too valuable for cemeteries. The light Bordeaux wines are used largely for drinking purposes by the foreigner, and I have no doubt his fear of drinking the essence of dead men prevents him from taking into his system one of the principal causes of stone through its effect upon the digestion.

The food, then, of the native is rice principally—so far, all right; but the animal food used is fish dried in the sun and salted—dried until it resembles leather, and is as hard as the nether millstone.

Next, vegetables treated in the same manner. Now he could scarcely take a diet more likely to tax his digestive powers to the utmost than this. Our patients are poorly nourished and suffer greatly from liver disease, a condition brought about by drinking hard water and eating such food as I have described, and a condition, according to Fothergill, "favorable to the abnormal formation of uric acid. The abundance of lithates in the urine when the liver is actively engaged in the process of digestion, renders it highly probable that certain peptones instead of undergoing further elaboration are turned aside and broken up prematurely into lithic acid. These lithates do not in any way represent tissue waste, for they have never been tissue. Just so the material which forms the uric acid might have been tissue under more favorable circumstances," but I may add, passing out through the kidneys, and in greater abundance than the urine can carry in solution, are deposited and give us our uric acid stones. So too, Dr. Henry Bennett says: "I have repeatedly alluded to the presence of morbid salts in the urine as a result of imperfect digestion," and in enumerating these salts he places those of uric acid first. Hence we find the drinking of hard water by patients afflicted with liver and kidney disturbances favors the production of stone but not necessarily an alkaline stone, for in these patients the chemical constituents of the food which are not digested, and which consequently do not become tissue, are much more likely to produce a stone, the formation of which will agree with the superabundant acid, generally uric. Now that I have attempted to show why we have uric acid stones when an alkaline water is used as a drink. I may further state that my observations lead me to conclude that the climate in which this hard water is used, and in which this indigestible food is eaten, bears no small share in favoring a condition of the system favorable to the production of stone. The southern part of China, at least the part from which our stone patients come, is an immense marsh. A clay soil produces fogs through its retentiveness of moisture, and marshes abound in exhalations unfavorable to health. These two conditions exist coupled with a warm, moist atmosphere. The north-east monsoon blowing from October to April is accompanied by almost constant rains in February, March, April, which rains continue in May, and the rainfall at Canton for these months, respectively, is on an average, 2.11, 3.43. 5, 3.03, inches. The velocity of the wind is between 4 and 8 miles per hour. The highest reading of the barometer is 30.25, and the lowest reading 29.90; while the thermometer registers 75° and 45°. It must be seen from this that the climate is moist and warm, and that both natives aud foreigners suffer from what we are now in the fashion of calling malaria. Now a malarial district, indigestible food, and hard water each have a share in giving us our sixty or seventy stone patients each year, and I think all observers will agree with me that a prevalence of this disorder in a district with well-defined boundaries where hard water is almost exclusively used, disproves the idea that hard water has no part in producing the disease, because in certain hard water districts no urinary calculi have been found, for in those districts no liver disturbance sufficient to the overproduction of uric acid has been noticed.

To come to that which is practical of vesical calculi—the operation for the removal of the stone. This was performed by me some two hundred times, and it may be of interest to notice our results in this far-off country. The condition of the patient when admitted to the hospital is, if we except his digestion, good. The opium smoking to which many of them are addicted (I do not speak now of opium sots, but of those who use a small quantity of the drug daily) does not seem to influence the results. In fact, I may say here that this habit receives a great deal of condemnation by anti-opium advocates, who, if they posted themselves upon the spot, would withdraw much of what they have said against it.

For the liver disorders of our patients we administer the usual remedy of a blue pill, and when the eye becomes clear, tongue clean, and the functions of the bowels well established, it matters little the condition of the urine—the patient is considered in good condition for operation. In children and young persons we always administer a large dose of santonine, with the result of the patient's passing large numbers of intestinal worms. How different this treatment from that practised by the native physician. The patient is dosed with nauseous compounds, oftentimes half a pint at a time, and, the

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disease not yielding, the moxa is used, till losing faitl in the doctors of his own country he appplies to th foreign hospital.

Age seems to exercise a great influence upon th result of this operation. In the statistics of m report of the first 138 cases in which I operated find, out of 46, the number of those under 20 year of age, I lost but 2. Referring to these same statis tics, we have 25 between the ages of 20 and 30, witl 3 deaths; 16 between 30 and 40, with no deaths 35 between 40 and 50, with 2 deaths; 5 between 5 and 60, no deaths; and 9 between 60 and 70, with death: a total of 8 deaths in 138 or 1 death in 17¼ operations. This result was largely due to the fac that the Oriental sustains surgical operations muc better than the Anglo-Saxon. This is true of th Chinese, Japanese, and Malays, and in our hospital in the East it is a rare thing that we are called on t treat erysipelas, pyæmia, or tetanus, after operations yet we do not use the antiseptic method of Sir Josep Lister. If we did, perhaps our results might be better still I question if better results are obtained with it It would be simply an impossibility to make th Chinese appreciate such thorough cleanliness as i necessary to carry out this system. There seemed t be no particular season of the year when we obtaine better results than at others.

The hygienic surroundings of our Chinese patient are bad. Each patient brings his own bed and bed ding, and is generally accompanied by some membe of his family to cook for and nurse him. Thi custom was instituted when the hatred of the Chines toward the foreigner was so great as to make it hazardous undertaking to lose a patient in the hos pital, hence a relative was admitted with him to se that he was not disposed of in any irregular manner such, for instance, as killing him to obtain his eye for medicine, a popular belief amongst the Chinese This custom still prevails, although the cause for it n longer exists. This impromptu nurse is carefull watched by the regular nurses of the hospital. Thes latter have had no special training, do not speal English, and allow the patients to live while in th wards very much as when at home, with certain restric tions as to diet. The wards are built after the style o Chinese architecture—one story high, with sliding skylights, a window at one end, and a door at th other, in which we have cut large circular aperture which the patients cannot close. We are thus com pelled to place our ventilating apparatus beyond th reach of the patients, as the Chinaman like our negr has a penchant for closing a room he occupies ver tightly. The walls are of lime and are thoroughl whitewashed every month. I am particular to men tion these apparently insignificant points to show tha hospitals constructed on strictly hygienic principle are not necessary to give us good results where w have Chinese for patients.

These being the surroundings and the patient ir condition we operate by the usual lateral method. have adopted one or two departures in the operatio which, after a considerable experience I am con vinced are of value, and you will pardon me, there fore, if I consume enough of your time to speak o them. I am convinced that a small incision into th

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which form around it through which the urine escapes, and it will never happen that the clots have to be removed to allow of the free escape of the urine—a thing which often does happen if no tube is used.

I regret that I am unable to give the proportion of those operated on who return for a second operation, another stone having formed, but I think it may safely be put at 1 in 70. Of course, the conditions exist which produced the first, but it is possible that the urethra, having been somewhat dilated by the passage of instruments when sounding for the stone, and the staff used at the time of the operation, may dilate the tube sufficiently to allow of the escape of a new stone when very small, which would have been retained had the urethra not been so dilated. For the performance of the second operation I have always made the incision into the perineum on the side opposite to that of the primary operation, to avoid the cicatrix as well as to cut the prostate in a new place. In this way I get quicker union and shun the adhesions between the rectum and prostate, which have resulted from the first operation.

TREATMENT OF DIABETES MELLITUS WITH CLEMENT'S SOLUTION OF ARSENITE OF BROMINE.

BY S. MAC SMITH, M.D.,
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JOHN S., aged 32 years, was admitted to the Germantown Hospital October 29, 1884, a pronounced case of diabetes mellitus; was sick six weeks previous to being admitted, at which time his domestic relations were such as to produce profound mental anxiety, which caused him to be delusive for several weeks, and when he applied for admission his spirits still remained much depressed, but he was rational and conversed intelligently; it should also be stated that there was possibly a hereditary predisposition to this disease, as the patient claimed his father suffered from a similar affection.

The patient's urine was examined and found to have a sp. gr. of 1.050, the amount voided in twenty-four hours being one hundred and three ounces, which readily responded to the several tests for sugar; the amount of sugar was not ascertained, but, as the urine contained very little urea, the high sp. gr. indicates a rather large percentage of sugar.

The patient was restricted to a nitrogenous diet, and placed on the several modes of treatment familiar to the profession, but without much, if any, improvement; his urine was frequently examined between October and the following April, and showed the sp. gr. to range from 1.040 to 1.050, the amount voided from eighty-five to one hundred ounces; he also became very much emaciated.

Some time in April we noticed, recommended by Dr. Austin Flint, Jr., the arsenite of bromine, "Clement's solution," for treatment of diabetes mellitus, and as all other agents had proven of no avail, we concluded to give this solution a trial, and report the following results: The drug was first administered in doses of three drops each ter in diem, increasing to five drops. After giving this solution for four days the urine was examined and found to have a sp. gr. of 1.018; amount voided in twenty-four hours, forty-two ounces; three days later the urine was again examined, sp. gr. 1.016, amount voided twenty-three ounces, in which condition it remained until the patient's death, of which a post-mortem showed the immediate cause to be phthisis pulmonalis.

Being encouraged by the above results, and rather predicting that something might be done for such unfortunate cases, we concluded to investigate still further the efficiency of this preparation, and therefore have, up to this present writing, seen nine cases treated in the manner above related with most happy results. Two of these cases were, as the one cited, quite chronic and subsequently died of phthisis pulmonalis, but the remaining seven of more recent development have increased in weight and assumed the responsibilities of life as in former years, and their urine is frequently examined with negative results; perhaps it would be presuming somewhat if we were to speak of these cases as being cured, for they may not have been under our notice long enough, but we can certainly join with Dr. Flint in recommending this preparation for trial at least, and possibly predict for it as being the future treatment of diabetes mellitus.

FRACTURE OF THE STERNAL END OF THE CLAVICLE

BY HAL C. WYMAN, M.D.,
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FRACTURE of the clavicle is of so common occurrence, that the humblest practitioner is familiar with it. The outer third or acromial end is the part of the bone most frequently broken; the middle third is less frequently the seat of fracture, and a fracture of the sternal end is so rare that I may be excused for describing the following case, which came under my observation through the kindness of Dr. J. E. Clark, of this city.

A robust boy, aged 16 years, was thrown from a wagon and severely injured. A large contused wound was made upon the left side of the head over the parietal eminence, and on the acromial aspect of the shoulder. When examined he complained of severe pain at the root of the neck. Crepitus was heard and felt about an inch from the sternal end of the left clavicle. There was a marked tendency for the sternal fragment of the clavicle to ride upward by the action of the sterno-mastoid muscle, the sharp broken surface pricking into the platysma, and causing spasm of that muscle. Treatment was embarrassed by this fact, and the result of the union was not as good as could have been desired. A very large callus formed because it was impossible to keep the fractured surfaces in apposition.

This callus bears such a relation to the long axis of the clavicle that when the left arm is thrown forward across the chest or backward over the back, a sharp angle of bone swings up and down at the root of the neck, making a very unsightly deformity, and inter-

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4. The absolute maximum has been attained in cases of slow reproduction of the red corpuscles, and in which the corpuscles of Bizzozero attained the greatest dimension.

5. In two cases of chlorosis in which the number of red corpuscles was normal, there was absolute and relative increase of the corpuscles of Bizzozero.

6. In two cases of scorbutus these were increased, while the white corpuscles were reduced in number.

7. In two cases of pellagra, they were relatively and absolutely decreased.

8. In a case of extreme puerperal anæmia, two days before death the presence of nucleated red corpuscles was noted in the circulating blood.—*Rivista Internazionale di Medicina e Chirurgia*, September, 1885.

BISMUTH IN SURGICAL DRESSINGS.—MM. GOSSELIN and HÉRET, having experimented with bismuth as a surgical dressing, made a report concerning its efficacy at a recent meeting of the Académie des Sciences.

Subnitrate of bismuth was found useful in diminishing inflammation and arresting post-operative oozing of blood, and in promoting cicatrization without suppuration. The hæmostatic action of the bismuth is explained by the presence of a small quantity of nitric acid set free by the action of the water in which it is suspended.

Experience also shows the salt to possess antiseptic qualities, a fact which explains the absence of suppuration in wounds to which the dressing is applied.

The application of the salt in water in a proportion of 1 to 50 is recommended as preferable to sprinkling the powder directly upon the wound, and the application is made when oozing is not profuse.

MM. Gosselin and Héret call attention to the following practical points:

1. The subnitrate is preferable to the hydrate of bismuth, because the latter does possess the coagulating and constringing qualities due to the presence of the nitric acid in the former.

2. As to the method of application, whether in powder or suspended in water, the first possesses the advantage of more certainly producing the desired effects, but is inconvenient inasmuch as the bismuth is not absorbed but remains as a foreign body in intimate relation with the tissues, though suppuration is not thereby increased. If the salt is applied suspended in water, a proportion of 1 to 50 is preferable to that of 1 to 100.

3. The question whether sutures should be at once introduced, or whether the wound should remain open until the day succeeding the operation, is decided according to circumstances.

If hemorrhage is so profuse as to render probable accumulation of the salt in the wound, sutures should be introduced but the wound allowed to remain open until the following day, it in the meanwhile being covered with a dressing saturated with a mixture of bismuth and water (1 to 100) and compression bandages superimposed. A general rule is to close the wound as soon as drainage can be dispensed with.—*Revue de Thérapeutique*, October 1, 1885.

APOMORPHINE IN CROUP AND BRONCHITIS.—DR. STUTZ, of Neuminster, is loud in his praises of apomorphine, subcutaneously injected in diphtheria complicated with croup, and in primary croup itself. Of ten of these latter cases, he lost only one, and this he attributes to his not having been called in quickly enough. Similar treatment is also very valuable in dyspnœa due to bronchitis. He has also been successful in cases of arsenical poisoning in children; and in one where a woman had such severe pharyngitis that she was quite unable either to swallow or speak. An apomorphine injection quickly emptied the stomach of pus and mucus, and enabled her both to speak and swallow.—*The British Medical Journal*, Oct. 17, 1885.

AN ANTISEPTIC PESSARY.—At the recent meeting of the French Congress for the Advancement of Science, M. HAYHEM presented an antiseptic pessary. The instrument consisted of a Dumontpallier's pessary, mounted upon a hemisphere of caoutchouc and supplied with a tube of the same substance. The hemisphere contains a sponge, and the pessary is so applied that the cervix comes in contact with the sponge, which is saturated with a concentrated antiseptic fluid of boracic acid, or of corrosive sublimate in proportion of 1 to 2000.

The latter fluid was preferred by M. Hayhem as promoting cicatrization, and a rapid reproduction of the epithelium. Cleansing of the parts should be made twice daily, without removing the pessary.—*Revue de Thérapeutique*, October 1, 1885.

UMBILICAL HERNIA; RUPTURE; EXTRUSION OF SEVERAL FEET OF INTESTINE; DEATH.—DR. RENNIE records the following case in the *China Customs Medical Reports*, No. 28: It occurred in a native infant whose mother died of puerperal fever. When first seen on March 3, 1884, the child was 27 days old, and his illness was doubtless due to improper feeding. For some days he had been much troubled with flatulence, and cried a good deal. Since the evening of the 1st of March he had cried almost constantly, and on the following morning an umbilical hernia, about the size of an orange, was noticed. About 4 P. M. the coverings of the hernia burst, and the intestines commenced to pass out at the opening. On the evening of the 3d of March, he was enveloped in quilts, which the attendants said they had applied to keep the intestines warm. On removing the coverings it was found that the greater part of the small intestine had passed out of the abdominal cavity and, deeply congested, distended with gas, and smeared with a loose motion that had recently been passed, lay on the surface of the abdomen. After cleansing the parts with sponge and weak solution of carbolic acid in water, and removing some of the flatus by means of a small aspirator needle, the opening in the abdomen was enlarged (it was found impossible to return the bowel without doing so), the intestines replaced, and the wound stitched up with carbolized silk. Eight hours afterwards the child died.—*Medical Times*, Oct. 17, 1885.

TREATMENT OF HYDATID CYSTS OF THE LIVER BY CAPILLARY ELECTROLYSIS.—M. H. HENROT, at the Congress of Grenoble, discussing the modifications of the treatment of hydatid cysts of the liver which have occurred during the last few years, referred to the methods of simple capillary puncture, puncture and drainage by the large ovariotomy trocar, direct opening by the

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covered his senses and intelligence, and until the pulse is easily counted.

6. The operation is entirely harmless.

7. Intravenous injection of artificial serum can only be considered as a means of producing reaction, but is without doubt the most powerful of all.

8. It is without effect upon the choleraic infection itself.

9. After its employment, as after that of all other methods to produce reaction, it is necessary to meet all indications as they arise.—*L'Union Médicale*, October 15, 1885.

THE THERAPEUTICS OF LEPROSY.—UNNA, *Monatshefte für prakt. Dermatologie*, from experience with a case of leprosy which he believes to have been cured, holds that:

1. Tubercular leprosy, even when generalized and extending over a period greater than one year, is curable.

2. Cure may be obtained in a relatively short period by energetic local and internal treatment.

3. The agents most useful in the treatment are sulpho-ichthyolate of ammonia, chrysophanic acid, pyrogallic acid, and resorcin.

4. The salts of the sulpho-ichthyolate of ammonia should be employed externally in concentrated solution. Internally, fifteen grains daily are sufficient, their action is efficacious in visceral leprosy. Externally, these preparations are valuable in debilitated patients with a very sensitive skin when more energetic agents cannot be employed, or when these have already irritated the skin.

5. Resorcin in ointment in a strength of twenty per cent., is a valuable remedy in the treatment of the disease.

6. Pyrogallic acid applied to the skin in ointment (five per cent.), or as a plaster, also gives good results.

7. Chrysophanic acid of a strength of ten per cent. is perhaps the best remedy with which to combat the disease. To avoid its introduction into the eyes, application should not be made upon the hands or face.

It may be employed along with other remedies.—*Revue des Sciences Médicales*, October, 1885.

THE FORMULA FOR A SAFE AND PRACTICAL GENERAL ANÆSTHETIC.—DR. B. W. RICHARDSON enumerates the requirements of a safe anæsthetic as follows:

1. It must be a fluid. Gases, however good, are not practicable as agents for general and ready use; and, as at the temperature of the blood they remain as gases, they exert, when dissolved in blood, no action from change of state within the organism. To narcotize with them it is, consequently, necessary to give them in large quantities—it may be even to the exclusion of air altogether. The influence of a gas thus administered is of necessity limited to the briefest interval of time; steady continuance would lead to death from asphyxia.

2. The fluid must possess homogeny and stability. Mixtures of different fluids are unreliable. Fluids which easily decompose under the influence of heat or of light are unreliable.

3. The fluid must be of pleasant odor, and must produce no local irritation when brought into contact with any surface. All the fluids which, like chloroform, amylene, and turpentine, cause redness and irritation of surface, cause also, when introduced through the blood, irritability of muscle and rigidity, together with vomiting.

4. The boiling-point of the fluid should be not less than 110° and not over 130° Fahr. A fluid which should have a boiling-point 20° Fahr. above the body, and other properties equally good to commend it, would be convenient in every respect It could be easily preserved, and as an anæsthetic it would be alike applicable to long and short operations.

5. The density of the vapor of the fluid should be about 40, taking hydrogen as unity.

6. The last, and perhaps almost the essential quality, relates to the solubility of the vapor in the blood. Up to the present time insufficient attention has been paid to this important point. Ether is too soluble, chloroform too insoluble. The mean between these two would be nearest to the requirement.

In brief, the agent wanted is a stable fluid; the oxide of a radical of the methene, ethene, or propene series, or of some similar hydrocarbon base, having a boiling-point of 50° C. (122° Fahr.), a vapor density of 40°, a solubility in blood of one part in fifty, at 37° C. (99° Fahr.), and yielding an unirritating agreeable vapor for inhalation.—*The Asclepiad*, October, 1885.

HÆMOSTATIC PILLS.—HUCHARD recommends the following:

℞.—Ergotine,
Quiniæ sulph. . . . . āā gr. xxx.
Digitalis pulv.,
Ext. hyoscyam. . . . . āā gr. iij.—M.
Ft. pil. No. xx.

S. Five to eight pills daily in the various forms of hemorrhage.—*L'Union Médicale*, October 13, 1885.

THE RELATIONS OF EPILEPSY AND HEMICRANIA.—MÖBIUS, in a discussion of the etiology of hemicrania, refutes the generally received opinion that hemicrania is of sympathetic origin, because of the well-known fact that diseases of this nerve, paralysis or irritation, are never accompanied with pain; and while not considering it as yet established whether the disease is neuralgic or vaso-motor in its origin, he allies it with epilepsy, and bases his conclusions upon the following facts:

1. Both diseases may originate from organic lesions of the brain, from reflex causes, or be presented as neuroses *per se*.

2. Both diseases are for the most part congenital and hereditary.

3. Both explode rapidly at periods widely separated, or the reverse.

4. Both diseases present prodromata of their attack.

5. As the epileptic attack may be typical or present its special features only in part, or be substituted by a complex of foreign symptoms, so in hemicrania at times scotoma only may supervene, while again only its equivalents, such as general malaise, weakness, nausea, may occur.

6. At times the attacks in hemicrania, as in epilepsy, are frequent, while again there is a true *status hemicranius*, analogous to the *status epilepticus*.

7. Both diseases are incurable and epilepsy of reflex

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origin disappears with the removal of the cause; the same occurs in hemicrania, as is shown by facts lately published.

8. As to the location of the lesion in these diseases, while it is generally accepted that in epilepsy the seat is cortical, Möbius inclines to the opinion that in hemicrania the effects are due to irritation of the descending root of the trigeminus, in the region where the fibres separate to supply the dura mater.—*Rivista Internazionale di Medicina e Chirurgia*, September, 1885.

Peptonuria and the Physiology of the Peptones.—Max Wassermann, *Thèse de Paris*, 1885, finds that:

1. Peptone is found in the urine in certain diseases, most frequently in such as are complicated with suppuration, or in which there are formed collections of some plastic substance.

2. Peptonuria appears to be constant in suppurating osteitis.

3. Peptonuria is caused by the destruction of the leucocytes, and its existence permits the diagnosis of suppuration or the regression of a plastic exudate.

4. Peptones introduced into the economy by other channels than the intestinal tract, are eliminated by the urine.

5. Peptones do not exist in the normal blood and do not traverse the intestinal walls unless converted into albumen.

6. It appears that the peptones are not directly assimilable, and hence the fact of their elimination by the urine after introduction into the blood by any other channel than the intestinal tract, such as by absorption from suppurating foci.—*Revue des Sciences Médicales*, October, 1885.

Treatment of Cardiac Hæmoptysis.—M. Germain Sée, in the treatment of cardiac hæmoptysis, recommends the use of the aqueous extract of ergot, in doses of sixty to seventy-five grains in twenty-four hours, combined with a grain and a half to two and a fourth of opium.

Hypodermic injections of ergotine may also be used when not resulting in abscess. The use of turpentine in syrups or capsules also is advantageous, but most reliance is to be placed upon toning up the heart by the use of digitalis.—*L'Union Médicale*, October 15, 1885.

Infectious Malignant Periostitis.—Dr. Andrea Ceccherelli in a clinical and experimental study of infectious malignant periostitis, after reference to the literature of the condition described under this term, makes the following résumé of the points to be observed in its treatment:

1. In malignant infectious periostitis in view of the serious nature of the disease, deep incisions should at once be made, by which the bone may be preserved when there is doubt whether its substance proper is diseased. Drainage should also be established, and the wound repeatedly washed with sulphocarbolate of zinc, carbolic acid, or chloride of zinc.

2. Trephining should be performed early. In order certainly to reach the track of the suppuration, the trephine, should be applied in several localities. The bone should also be scraped, and in cases of extreme extension of the disease resection should be practised.

3. Amputation should not be resorted to until by reason of the existence of diffuse inflammation and abscess of the bone, as shown by profuse suppuration, the general, together with the local symptoms, are most serious.

4. The use of tonics and antiseptics should be at once instituted, and all complications combated.—*Lo Sperimentale*, August, 1885.

Total Absence of the Vagina; Menstrual Retention During Two Years, Followed by Operation and Cure.—Eastman reports the case of a girl fifteen years of age who for two years experienced periodic pain in the pelvis, which each month increased in violence, finally becoming constant and accompanied with much discomfort during defecation.

The right iliac region was occupied by a tumor, gourd-like in form, and while the external genitals were normal, no trace of a vagina was discoverable.

The patient being anæsthetized, the uterus and Fallopian tubes were found distended with retained menstrual fluid.

Introducing a finger into the rectum and a sound entrusted to an assistant into the bladder, Dr. Eastman made an incision sufficient for the admission of his finger and then, aided by the handle of a bistoury, tore the tissues until the uterus was reached. This organ was then punctured and more than two quarts of retained fluid escaped.

In order to prevent the irrigating fluid from entering the abdominal cavity through the Fallopian tubes, a double canula was used.

Though puncture had been made through the uterine wall, the os uteri was discovered later, and drainage established through it.

A Sims's vaginal dilator was used to prevent closure of the vagina. In the progress of the case toward recovery, nothing abnormal occurred until six weeks subsequent to the operation, when the patient complained of intense pain. It was found that atresia of the cervix had occurred, which on dilatation permitted the escape of more than a quart of pus. From this time on the patient menstruated regularly, and permanent establishment of the menstrual function seems assured.—*Archives de Tocologie*, October, 1885.

Peritomy for Granular Lids.—Mr. Spencer Watson exhibited at a recent meeting of the Ophthalmological Society of the United Kingdom a case of granular lids and rough vascular corneæ treated by peritomy, with partially successful results. The patient was a woman, aged 22. The right eye was operated on in May, and the left in July last. The improvement was but partial in both eyes, the corneæ having become somewhat clearer and less vascular, but the palpebral mucous membrane remained as rough and granular as before the operations.

Mr. Anderson Critchett thought that Mr. Watson had exaggerated the late Mr. G. Critchett's opinion, which was that, in many cases, peritomy sufficed without other treatment; in others, it was necessary to treat the granulations after peritomy. If a considerable power of constitutional repair were present, then the tight cicatrix necessary for the complete cure would be formed, but this frequently failed to occur in strumous

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subjects. No doubt, in some cases, the treatment by jequirity is sufficient.

MR. NETTLESHIP said that, in his experience, peritomy had, in a certain proportion of cases, given most brilliant results. In one case in which he had freely used jequirity, the subsequent performance of peritomy was followed by a most satisfactory result, the corneæ becoming almost perfectly clear.—*British Med. Journal*, October 24, 1885.

ARSENIC IN THE TREATMENT OF CHOREA.—At a meeting of the Harveian Society, held October 15, 1885, DR. W. B. CHEADLE, speaking from the careful notes, of 160 cases of chorea observed during the period of eight years, stated that the average duration of the disease, under treatment, had been five weeks (the extremes being ten weeks and four days); whereas cases without treatment may extend from eleven to fifty-two weeks, or indefinitely. The author had tried various methods, including rest and expectancy, with results sometimes beneficial, but never completely successful. In arsenic, he had at last found an agent which did succeed. Todd, as long as forty years ago, had recognized its power; so had Babington and Begbie: but dread of the poison had checked their use of the remedy. Dr. Cheadle narrated some striking cases of rapid improvement under the influence of ordinary doses of liquor arsenicalis, with small doses of tincture of perchloride of iron. A comparison of a long series of cases treated without arsenic and with arsenic, respectively, gave for the former an average duration of forty days; for the latter, twenty-nine days; and this difference was increased when the last fifty-eight cases were compared with fifty-eight consecutive cases in the former series, the average duration under arsenic being only twenty-four days. Arsenic was in every case well borne, excepting a remarkable result repeatedly observed by the author, but not hitherto described by others; namely, a bronzing of the skin analogous to that observed in Addison's disease. The staining was most marked in the flexures, did not affect the face, and ultimately disappeared. In one case, however, it had become permanent, but would probably vanish in time. The pigment deposited was not metallic, as in discoloration by silver, but resembled the pigmentation due to chronic congestion. In conclusion, whilst advocating arsenic in chorea, the author did not wish to depreciate the value of other therapeutic agents, which should be employed concurrently.—*British Med. Journal*, October 24, 1885.

DERMATOSES CONSECUTIVE AND ANTECEDENT TO RENAL DISEASE.—DR. GEORGES THIBIERGE, in an exhaustive discussion of the relation of dermatoses with diseases of kidney and with albuminuria, clearly shows that certain forms of nephritis may accompany or follow certain forms of skin disease. Examining the three principal theories by which it is attempted to explain the presence of albumen in the urine under these conditions, namely:

1. That albumen is due to the suppression of the cutaneous functions, especially that of perspiration.

2. That it results from disturbance of the renal circulation, produced by the irritation which the cutaneous lesions excite in the terminal nerve fibres.

3. That it is excited by an infectious nephritis consecutive to the introduction into the blood current of microörganisms originating in the cutaneous lesions;—he dismisses the first theory as inapplicable to human pathology, and while it is admitted that for some cases in which the albuminaria is slight and transient the second theory is sufficient explanation, it is to the third as supported by the great number of cases in which the renal disturbance occurs, and in which it first disappears only when the skin disease is cured, that the author unhesitatingly subscribes.

Dr. Thibierge next considers skin diseases as consecutive upon renal disease.

Various forms of skin disease, among which are pruritus, roseola, purpura, pustular eruptions, etc., are discussed under this head, and the author concludes that although their origin is probably of uræmic nature, this cannot be affirmed without reserve.

The study of Dr. Thibierge is extremely interesting, as showing the complexity of the relations existing between cutaneous disease and nephritis, the author proving that each may follow or precede the other as cause or consequence, and that they mutually may react and aggravate each other.—*Annales de Dermatologie et de Syphiligraphie*, August and September, 1885.

THE ACTION OF THE IODIDES UPON GENERAL NUTRITION, AND THEIR METHOD OF ELIMINATION.—DR. DUCHESNE (Thèse de Paris, 1885), in a study of the action of the various iodides, holds that it is impossible to consider the iodides as a unit, either as accelerators or moderators of nutrition, inasmuch as some, as metallic iodine and the iodide of potassium, hasten the disintegration of nitrogenized matter, while others, as the iodides of sodium and calcium, retard it. There is accordingly no equivalence of action among these different agents, neither as relates to intensity or mode of operation. According to the form in which iodine is introduced into the economy, whether as the metalloid or combined with potassium, effects different both in intensity and nature are obtained.

Further, the general effects of the drug are influenced by the condition of the kidneys and the constitution of the patient.

As a general rule, when it is desired to influence nutrition for the relief of such diseases as gout or chronic rheumatism, metallic iodine is to be preferred.

According to Dr. Duchesne, the iodides of potassium and sodium increase, while the iodide of calcium decreases, nutrition.

The iodides of potassium, sodium, calcium, and ammonium increase the production of uric acid, while the tincture of iodine diminishes it.

The elimination of phosphoric acid is diminished by the iodides of sodium and calcium and increased by the iodide of ammonium and tincture of iodine. Under the action of the iodide of potassium it may be increased or diminished.

The iodides of potassium and calcium decrease the elimination of the chlorides, the iodides of ammonium and the tincture of iodine increase their elimination, while the polyiodides appear indifferent. The rapidity with which iodine is eliminated by the urine is not so great as represented by some authorities.—*Revue Médicale*, September, 1885.

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THE MEDICAL NE

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PHILAD

SATURDAY, NOVEMBER 7, 1885

ACTINOMYCOSIS.

SCARCELY eight years have passed since
GER described in the ox, and JAMES ISRAEL
the first examples of this curious disease, an
the literature on the subject is extensive, ve
cases having been reported, chiefly in Germ

The actinomyces is a parasitic fungus c
of a central matted tuft, or mycelium, fro
simple or branched club-shaped threads ra
that the whole forms a rosette-like body. T
thus formed has a yellow tint, and may beco
fied, and this little yellowish, gritty body, w
be plainly seen with the naked eye, is of g
portance in the diagnosis of the disease. T
site induces the development of nodular gro
unlike tubercles, consisting of round cells,
some instances of epithelioid elements and gi
There is a strong tendency to suppuration, n
ticularly in man, in whom the firm, sarc
growths of "big jaw" in cattle are very rar
The position of the fungus is still undetermi
it is usually grouped among the moulds.
ISRAEL, BOSTRÖM, and others have successfu
vated it on gelatine, and induced the d
animals by inoculation.

The pathological aspects of the affectio
mirably portrayed in PONFICK'S memoir on
ject published in 1882, and James Israel ha
critical study of the clinical features in a rece
graph issued by HIRSCHWALD, in which the
cases are carefully analyzed.

Three groups of cases can be recognized a
to the mode of entrance of the parasite
mouth and pharynx, by the air passages, and

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disease are most diverse, depending largely upon the organs affected. When localized in the jaws or neck, there is a reasonable hope of effecting a cure with the knife, but when it is deep seated, and has produced metastasis, treatment is unavailing. The disease occurs extensively among cattle in this country, and two cases have recently been reported from Chicago. Others will doubtless be detected when the attention of surgeons is directed to the subject. The presence of the yellow actinomyces granules in the pus may be taken as pathognomonic of the existence of the disease.

DISTENTION OF THE RECTUM AND SUPRAPUBIC LITHOTOMY.

Since the time when suprapubic lithotomy was first practised, more than three hundred years ago, nothing has contributed so much to the favor with which it is now regarded as the invention of that step in its *technique* which is known as Petersen's method. This method consists, as many of our readers are aware, in forcing the bladder out of the true pelvis, and elevating the fold of peritoneum which usually comes down in front of it, almost, or quite, to the level of the symphysis pubis, by distending the rectum and bladder.

The first suggestion of this plan is usually attributed to Prof. Petersen, of Kiel, who, in a paper read before the Ninth Congress of the Deutsche Gesellschaft für Chirurgie, on April 7, 1880, gave an account of some experiments which he had conducted to demonstrate the effect of such a practice, and of two operations in which he had resorted to it with entire success, on the strength of which he urged its adoption as a general method. The originality of this idea of Prof. Petersen was not questioned at that time, and the few surgeons who discussed his paper seemed to think that neither it nor the suprapubic operation was worthy of adoption. Yet, only two years before, the very same body had listened to a communication from Prof. Braune, of Leipzig, who reported the results of some experiments which had been made, under his direction, by Dr. Garson, of Edinburgh, at that time studying with him, the object of which was to determine the effect upon the contents of the pelvis of the distention caused by introducing the hand into the rectum for the purpose of exploration, as suggested and practised by Simon.

The bearing of these experiments on the subject of suprapubic lithotomy seems not to have been observed by Prof. Braune, or by his hearers—unless Prof. Petersen was among them. But it was not overlooked in the paper giving an account of them which Dr. Garson himself published in the *Edinburgh Medical Journal*, in October, 1878; for here it is distinctly stated: "It is evident that in performing the suprapubic operation for lithotomy or puncture of the bladder that viscus can be as easily raised above the symphysis by distending the rectum as by injecting the bladder, and that in cases where it is not advisable to distend the bladder to a large size, distention of the rectum is all that is required to make the parts suitable for the operation." Nevertheless, although this sounds like the plan of Petersen, it will be noticed that it is not identical with it. Dr. Garson, while he learned from his experiments that it is solely by the distention of the rectum that the peritoneum is carried up from the symphysis pubis, suggests this procedure only as a substitute for distention of the bladder, with the sole object of raising the bladder, and not the peritoneum, above the pubes, and this only in cases in which it is not advisable to distend the viscus to a large size. Petersen, on the contrary, proposed his method as an essential part of every operation of suprapubic lithotomy, and for the distinct purpose of raising the peritoneum, after becoming convinced of its value by direct experimentation, and also by the result of two operations conducted in this way. Hence, it is clear that whatever merit attaches to this method belongs of right to Prof. Petersen; for, although he did not appreciate as justly as did Dr. Garson the relative parts played by the distention of the rectum and that of the bladder in this method, yet, his practical application of it, meeting with success at his own hands, has been imitated almost wherever the suprapubic lithotomy has been performed since 1880, and Petersen's method is now usually regarded as an integral part of the operation.

The most recent contribution to the literature of this subject is a valuable paper by DR. FEHLEISEN, of Berlin, "Ueber die Verschiebung der Harnblase bei der Tamponnade des Rectum," which appeared in Langenbeck's *Archiv für klinische Chirurgie*, Bd. xxxii. Heft 3, and in which can be found all that is needed to complete our understanding of the mechanism of this method, and to indicate what is the best way of carrying it out. Dr. Fehleisen's paper is illustrated by four large colored lithographs, each of which represents vertical sections of a body frozen after various injections of the rectum and bladder had been practised.

One of the plates shows the bladder distended with about 9½ ounces of fluid. Here the bladder is round, and, while it presents a surface several centimetres long above the level of the pubes, it is still covered in front by the peritoneum. The next plate shows the effect of distention of the bladder with only about 6 ounces, combined with distention of the rectum with about 15 ounces. Here the section of the bladder is more or less pentagonal—a shape which is due chiefly to the forcing forwards of its posterior wall by the distention of the rectum behind it—and the peritoneum has been pressed up so that it leaves

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a clear space above the pubes about one inch and a half long. A third plate shows the result of an experiment intended to determine what share in the displacement of the peritoneum is to be attributed to the filling of the rectum—a point which Dr. Garson had previously investigated. The bladder was injected with as much fluid as both it and the rectum contained in the preceding experiment. Here we find, again, an almost round bladder, with the peritoneum descending in front of it, to within four-fifths of an inch of the pubes. The last plate shows the effect of filling both bladder and rectum with considerable quantities of fluid. Here the bladder contains about 13 ounces, and the rectum about 16 ounces, and the peritoneum is removed from the symphysis pubis to a distance of about 3¼ inches.

The demonstration of these experiments is complete, and there can be little doubt that Dr. Fehleisen suggests in his paper the best way to carry out the suggestions of Dr. Garson and Prof. Petersen, in recommending that, as preliminary to the cutting part of the operation of suprapubic lithotomy, the rectum of an adult shall be distended with from 14 to 16 ounces of fluid, and then the bladder injected with from 8 to 10 ounces, or exceptionally with 13½ ounces of fluid. The essential point in this way of conducting the distention, it will be seen, is that the rectum shall contain more fluid than the bladder. An incidental advantage of this method consists in the pressing forward of the fundus of the bladder, which facilitates examination of it, or operation upon it, in cases of tumor of the viscus.

But one thing remains to be mentioned in connection with this paper, and that is, that the writer suggests, instead of the use of a colpeurynter introduced into the rectum, that the distention be effected by introducing an œsophageal tube, over the end of which a condom has been slipped, and attached to the tube at a distance of three to four inches from the point. This is to be distended by injecting water through the tube, after it has been passed all the way up the promontory of the sacrum. The injection of the bladder can be effected through a catheter previously introduced.

The great merit of Petersen's method is that it removes what has always been a source of anxiety to those who are not very familiar with the history and statistics of suprapubic lithotomy. The fact is, that these precautions are not essential to a successful performance of the operation, and that wounding the peritoneum has been a very rare occurrence, even when the operation was done in the simplest and most informal manner. Dr. Dulles, who has made this operation the subject of continued study during the ten years which have elapsed since he published an analysis of 480 cases in *The American Journal of the Medical Sciences*, July, 1875, states that he has now collated about 750 cases, and that out of nearly 650 operations practised before Petersen's method was suggested, in only 19 was the peritoneum cut or burst, 1 of these cuttings being intentional, and that of the 19 patients, 11 recovered. It appears, indeed, from a study of a very large number of cases, that it is not difficult to avoid the peritoneum if due care be exercised. Nevertheless, we would recommend the adoption of the method of distending the rectum suggested by Garson and Petersen, and improved upon by Fehleisen, as encouraging those who are less sure than we are that it is not essential to safety. With it, and with after-treatment by drainage, or by suturing the bladder, where this can be properly done, as indicated in our issue of September 12, last, the suprapubic operation offers a fine field for the enterprise of American, as well as of other surgeons.

THE MASSACHUSETTS EMERGENCY AND HYGIENE ASSOCIATION.

THERE is no more wholesome indication abroad in the realm of public hygiene than the wide and practical interest taken in this all-important subject by the non-professional public. Individuals have, for a long time, been noted for their self-sacrificing labors in this direction; but of late, influential associations have been formed for the prosecution of the work on a broader basis than that of personal effort and for compelling a hearing, as can be done by an earnest body of prominent citizens so much better than when a single voice is crying in the wilderness. The excellent work done by the Manchester and Salford Society in England, and by the lectures on emergencies and nursing in New York and in this city under the auspices of the charity organizations, the county medical, and similar societies, is proof of the recognition of the need of the hour, and of the value of united effort. No effort of theirs, however, is more comprehensive and far-reaching than that of the Association, the name of which heads this article.

In 1883 the Women's Educational Society, a voluntary body of active, unselfish women, began courses of lectures, seven of which were free, and three to paying classes. The next year the number went up with a leap to twenty-five. It was then seen that the work was becoming so large and important, that the old Society gave way to a new and broader one—The Massachusetts Emergency and Hygiene Association. This Society has planned a splendidly useful work on a broad scale. It proposes to form branches throughout the State; to give instruction to those who can pay a fee; to give free lectures to railroad employés, mill operatives, stevedores, and the like; to the police, the militia, and the fire department; to missions and public institutions, and to teachers and the more advanced pupils in normal schools,

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and such others as may be interested in the public health. It speaks well for the intelligence of the community, for the unselfishness of the promoters of the schemes, and for the generosity of the instructors, that such a broad purpose should be entertained, and has been successfully initiated.

Their first publication, as we judge it to be, consists of *Six Lectures upon School Hygiene*, forming a book of 200 pages, the contents of which are most agreeable and instructive reading. As a book it is valuable, but far beyond this value is the interest it has already awakened among the very class it is intended to reach. As lectures delivered to teachers, the addresses must have carried weight and given an impetus to school hygiene, that no mere book issued to an absorbed and inattentive public could possibly do.

Dr. Frank Wells, Vice-President of the Association, opens the book in an address on the general subject of school hygiene, and later gives another on drainage. Dr. F. W. Draper's lecture is on heating and ventilation; Dr. C. H. Williams's on the use and care of the eyes; Dr. G. B. Shattuck's on epidemics and disinfection; and Dr. C. F. Folsom's on the relation of the public schools to disorders of the nervous system.

The book should be read by every school-teacher in the land, for it will not only give information, but will stimulate every such reader to a higher and better aim as a teacher to develop and care for both mind and body—the body as a necessary factor in mental growth. Dr. Folsom, we think, has been especially happy in a nice discrimination as to the question of over-work, particularly in girls, balancing with judicial skill the assertions on both sides of this much vexed question.

Other cities than Boston may well imitate such powerful voluntary associations, and convert what is now useful but desultory work into a systematized effort of the greatest value and power.

IMPERFORATION, AND SUBSEQUENT GREAT DISTENSIBILITY OF THE HYMEN.

IN the *Revue Medicale* for October 10th, an interesting case of congenital atresia of the hymen, with subsequent great dilatability of this membrane, is given.

The subject was twenty-four years of age, married, but childless. When fourteen years of age the manifestations of the change from girlhood to womanhood occurred, except that the monthly flow failed, though there was at regular periods a decided menstrual molimen. A hypogastric tumor was manifest, increasing somewhat at each menstrual effort, but diminishing slightly in the intervals. The symptoms continued until she was twenty-one years old, when the abdominal tumor had increased until it equalled in size that of pregnancy at term. A puncture was made in the hymen, and the blood accumulated in the uterus and vagina was discharged, with entire disappearance of the abdominal tumor.

It is worthy of remark that there was a notable tolerance of accumulated menstrual fluid shown in this case. It is not unusual, as pointed out by Bernutz, for a fatal result to occur in the second or in the third year after the beginning of the menstrual efforts. This fatal result is caused by a general peritonitis excited by a portion of the collected fluid passing through the oviducts into the peritoneal cavity. Nevertheless, though in this case menstrual collection continued for seven years without this very dangerous accident occurring, Hervez de Chégoin, according to Bernutz, has reported one in which ten years elapsed. But such long delay as occurred even in the first case is not to be expected, and hence a temporizing practice is utterly forbidden.

Another interesting fact in connection with the case is the safe result from a simple puncture of the hymeneal membrane. While some advocate such puncture, with gradual evacuation of the menstrual accumulation, others, foremost among whom is Emmet, advise free incision with thorough washing out of the uterine cavity; it is important, therefore, to know the result of one or of the other method of operating, that when a sufficient number of facts is collected we may adopt that practice which has been proved the safer.

Shortly after the operation above stated the subject married, but was childless. As there was no obstacle to coition, as digital examination was readily made, and as a speculum could be easily introduced, it seemed improbable that the sterility which was found to exist was due to any mechanical obstacle. But vaginal examination with the finger was unsatisfactory in this, that the cervix could not be directly touched, for there seemed to be a thin membrane intervening between it and the finger. This membrane proved to be the hymen, which furnished a complete covering to the finger as it was pressed toward the vaginal vault. Doubtless such remarkable stretching of the hymen had been rendered possible by continued copulation, the result having been gradually attained. Excision of the hymen was followed by fecundity.

REVIEWS.

HOW TO DRAIN A HOUSE. PRACTICAL INFORMATION FOR HOUSEHOLDERS. By DR. GEORGE E. WARING, JR., M. Inst. C. E., Consulting Engineer for Sanitary Drainage. 12mo. pp. 222. New York: Henry Holt & Co., 1885.

THE author of this timely little book commences his preface with the statement that drains in modern houses are probably the most serious enemies with which struggling humanity has to contend, but that they are never

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necessarily antagonists to human health. claims that a country town would be vast in sanitary condition by the substitution of fect sewerage for the old-fashioned foulness and drinking-water resulting from cesspoc side privies. The drainage system is, howe tends, a trustworthy ally in our hourly battle causes of disease, only so long as the wo house holds it under close and careful supe

Our author describes concisely, and, as a the precautions which should be taken in cellar and laying the foundation walls of construction of the main drain and soil-p rangement of fresh air inlets, and other det tary work. In regard to traps, he recom nam's as effective, withstanding siphonage substantially self-cleansing. He expresse preference for his own invention in water-cl he calls the "Dececo."

Mr. Waring makes a curious blunder in t tion of his aphorism on p. 21: "Look out health-rate, and the death-rate will lose its si We feel assured that, if our author will take der profoundly the problem, he will conc those instances where his rare engineering abled him to diminish the sickness and m filth disorders to a minimum, the reduce is *most significant* of his praiseworthy succe

LEHRBUCH DER PHYSIOLOGIE FUR AKADEM LESUNGEN UND ZUM SELBSTUDIUM. BEG RUD. WAGNER, FORTGEFUHRT VON OTTO herausgegeben von Dr. A. Gruenhage der Medizin. Physik an der Universität berg. I. Pr. Siebente neu bearbeitete Aufla Zweihuntertundfünfzig in den Text ei Holtzschnitten, 1te, 5te Lieferung. Ha Leipzig: Leopold Voss, 1884–5.

TEXT-BOOK OF PHYSIOLOGY, commenced Wagner, continued by Otto Funke, and re A. Gruenhagen, Professor of Medical Ph University of Königsberg. Seventh edition. 250 woodcuts. Hamburg and Leipzig, 188

This great book, having attained a seve is, of course, sturdily independent of eith blame from the pen of any foreign reviewer. in the German empire a position similar to penter among physicians and students in En ing countries, and may justly claim to be nc less compilation of dry facts, but a vivid pr the living and breathing science of phys present distinguished author addresses him to the medical pupil and practitioner, but dents of biology, and even aims to win general readers a circle of interested list teachings.

The first division of the book is devoted of tissue changes in the living organism, exhaustively discussed the physiology of d sorption, sanguinification, and excretion. tion the blood is considered in its microsco ical, and physical relations, including the r the heart and vessels; also the movement of the blood as dependent upon respiration.

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cases of clubfoot are the result of infantile palsy. Deformities of the upper extremities are rare; this disease differing in this respect from cerebral palsies. The exact causes of infantile palsy are unknown. Overfatigue often precedes an attack; sudden chilling is considered by Seguin to be a frequent cause.

The *prognosis* as to perfect recovery is only moderately good. In many cases the most faithful treatment fails to restore the paralyzed muscles, but in almost every case we can expect more or less improvement.

In the early stages of the paralysis after the subsidence of the fever, the treatment should consist of mild stimulation to the spine; ergot and small doses of bromide of potassium should be given internally. Later in the disease, iodide of potassium should be given instead of the bromide. When the palsy is established, electricity and massage are the means to be depended upon. They must be persisted in for months or even for years. Internal treatment is of little or no value, unless there is some failure in the general health of the child.

Spasmodic paralysis, as seen in children, is of two varieties: when of primary spinal origin, or when there is a descending degeneration of the cord from a primary cerebral lesion. Sometimes there seems to be a congenital defect in the motor tracts of both brain and cord. In the spinal variety, there is often seen, soon after birth, rigidity of the limbs, at first this is only occasional, but, as the child gets older, every effort to move a limb causes muscular rigidity in it. The child does not attempt to walk until three or four years of age. Then, when it is supported under the arms and it tries to stand or to walk, the movements are very peculiar and characteristic. The feet are extended and inverted, so that the child rests on the toes. The knees are strongly adducted and lock together, so that the legs become entangled. By degrees the child becomes able to walk with the aid of apparatus or some form of crutch. The hands and arms are often affected, and every effort causes muscular rigidity to come on. The mind is unaffected in these cases and the speech may be distinct although it is often very defective. Sensation is unimpaired, and the patella reflex and ankle clonus are exaggerated. There is no wasting of the muscles. By these symptoms we infer that the disease is localized in the lateral columns; but exactly what is the nature of the lesions we do not know, for no post-mortem examinations have been made in these cases. The cause is unknown. Hamilton found three of seven cases which he had collected were premature births, Adherent and contracted prepuce have been thought by some to be caused by reflex influence of the spasmodic paralysis, but operation has not given relief. The treatment should consist of massage, galvanism to the spine, ergot, and cod-liver oil. Fluid extract of conium may be given to allay spasm. In some cases great improvement follows this treatment.

Even when we can do no positive good to the limbs, very much can be effected by the aid of apparatus. Properly adjusted braces to the legs will enable the child to walk on crutches or in a Darrach wheel-crutch.

There is a form of spasmodic spinal paralysis in which the child is imbecile. In these cases there has probably been congenital defect in cerebral development. The head is small and there is no evidence of intellect, often nystagmus is present.

Paralysis from Pott's Disease.—Paralysis of the lower extremities may result from caries of the spine. The lesion may be either a meningitis or a myelitis. If meningitis alone, there are considerable pain and contraction of the legs. Generally there is a transverse myelitis. The symptoms are numbness and pricking of the legs with loss of sensation, gradually increasing loss of power with wasting of the muscles, incontinence of feces with retention or incontinence of urine. Sometimes there are ulcers over the sacrum or on the limbs.

The indications for treatment are evident. An apparatus which will take the weight of the body from the spine is necessary, and is sometimes sufficient of itself. Frequently, however, the application of the actual cautery over the spine brings improvement in the symptoms when apparatus has done no good. Massage and electricity should be used to restore the atrophied muscles.

Paralysis from rachitis and diphtheria is seldom complete. The former is often spoken of as the pseudo palsy of rickets. Negro children, who are very subject to rachitis in cities, often have rachitic paralysis. The child at three or four years is unable to walk or stand. Sometimes it has not sufficient muscular development to sit upright. It can move every limb and has no loss of sensation, but has no power. Cod-liver oil and massage bring about the most satisfactory results in these cases.

Diphtheritic paralysis usually begins in the muscles of the soft palate and pharynx, and extends to the extremities. It is generally bilateral and incomplete, but I have seen a case in which it was hemiplegic. It is considered peripheral in character and is believed by some to be connected with the altered condition of the blood consequent on the original attack. Diphtheritic paralysis is rarely fatal and lasts in most cases only a few weeks, although it may continue for months. Strychnia and electricity are the means to be employed, and the case usually responds promptly to these remedies.

Pseudo-hypertrophic paralysis is a rare affection, but is of much interest. The disease belongs almost exclusively to infancy. It is characterized by muscular paralysis with great increase in the bulk of the muscles. This enlargement is due to fatty deposits, while the muscular tissue proper is atrophied. The affection begins with weakness of the legs, a peculiar balancing of the trunk and separation of the legs in walking. The shoulders are thrown far back in standing and walking. There is great difficulty in getting from the sitting to a standing position. Later in the disease the muscles become wasted and shrunken, and the general health begins to suffer. Death results from implication of the respiratory muscles. The skin is mottled like a piece of castile soap. The tendon reflexes are abolished and electro-muscular contractility is impaired. There is often a greater or less amount of mental weakness. There is no loss of power over the bladder and rectum, and sensation is not affected. Heredity influences the disease, which is slow in its progress, but the course is steadily downward.

Friedreich's disease is still more rare than the pre-

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ceding. It is practically locomotor ataxia in childhood. There is evidenced here also a hereditary predisposition, and the female children seem most liable.

Cerebral Palsies.—Hemiplegia may result from some injury at the time of birth, either from the forceps or from the pressure of a prolonged labor. A child may be born hemiplegic after a perfectly natural and easy labor. Under these circumstances we must regard the paralysis as the result of imperfect cerebral development. Hemiplegia under these circumstances is generally permanent. The side affected grows less rapidly than the other. The flexors of the arm and hand are usually contracted. The leg becomes rigid in the act of walking.

Convulsion is almost always associated with cerebral paralysis, either immediately preceding the attack or occurring soon after. The convulsive movements are most violent on the side which is subsequently paralyzed. The child will have an idiotic expression and speak indistinctly, but its friends think it intelligent. The convulsions are liable to return when the child is older, and then assume an epileptic form. The walk is peculiar and is called the *spastic* gait. The patient plods along looking as if he were about to pitch forward. The affected limbs are smaller and shorter, the growth of both bone and muscle being affected. In the choreic variety, where the arm is in constant motion, the muscles may become hypertrophied, but the bone remains short.

Prognosis.—As a rule, the prospect of recovery is bad. Even if the patient gets well, the hemiplegic side remains awkward.

Treatment.—Cod-liver oil and massage, which always relaxes the contracted muscles. The affected limbs should be used as much as possible.

DR. HARRIS inquired whether Dr. Sinkler had ever observed any hereditary disposition to convulsions and cerebral paralysis.

DR. SINKLER replied that the hereditary influence was decided even when no convulsions occurred.

DR. R. P. HARRIS read a report of the autopsy upon Mrs. Reybold, from whom two living children had been removed by

CÆSAREAN SECTION

by Professor Gibson, of the University of Pennsylvania. The superior strait was reniform; conjugate diameter, one and three-quarter inches; transverse diameter, five and a quarter inches. The malformation was due to rachitis and injury from a fall in her second year. A full report of the history of the patient, the operations, and the autopsy, is to be found in the *The American Journal of the Medical Sciences*, October, 1885, p. 422.

DR. E. E. MONTGOMERY reported the following case of

OÖPHORECTOMY:

Mrs. L., of Columbia, Pa., æt. 36 years; married ten years; pregnant five times, the last four years ago; was brought to my notice by Dr. A. F. Chase. Her health has been bad since her last confinement. First menstruation at twelve and a half years, regular and very free for one and a half years, when she fell, producing pelvic distress; after which, for seven years, the flow was very scanty, lasting but one or two days, and accompanied by excruciating pain. She improved somewhat after marriage. Her first conception was followed by so much nausea, vomiting, and anæmia that her physician advised and induced an abortion. She is now regular as to time, but irregular as to quantity; it is preceded by an excruciating pain for two days, which continues until the flow disappears; she also has severe pain in the head. She is very nervous at all times, but this is much intensified during the period. Pain is more marked in the left inguinal region and down the corresponding limb. Coition and vaginal examination are very painful. The uterus is enlarged and painful, tender on pressure over both ovaries. Local uterine treatment had been kept up during the entire four years, with no relief. Trachelorrhaphy had been performed. Ovariotomy was advised. September 19, 1885, she entered my private hospital, and, assisted by Drs. W. H. and C. B. Warder and E. Eshleman, the uterine appendages were removed. The left ovary was composed of a number of cysts, the largest of which ruptured while adhesions were being separated. The right ovary was not enlarged, but it was removed to insure relief. The wound was closed with silk-gut, and dressed with sublimated gauze and absorbent cotton. There was no shock. The highest temperature reached was 101.6°, at midnight of the 20th, and it became normal on the 22d. Sutures were removed on the eighth day, and the wound redressed for the first time. It had united throughout, and there was no irritation from the sutures. The effect upon her general health remains to be determined.

DR. MONTGOMERY also reported the following case of

SUPRAVAGINAL REMOVAL OF THE UTERUS AND BOTH OVARIES FOR FIBROID TUMOR.

Ann U., æt. 27, was brought to me by Dr. F. H. Boysen, of Egg Harbor City, with the following history: Her menses from the beginning occurred every three weeks and were free an entire week. During the last four years they have occurred every two weeks and are attended with pain in the pelvis and down the limbs, and severe pressure on the bladder, causing frequent urination and several times necessitating the use of the catheter. Dr. B. had diagnosticated fibroid tumor, which my subsequent examination confirmed. The tumor was the size of a child's head, filling up the pelvis and apparently arising from the anterior wall. The examination led me to believe that the bladder was adherent over the anterior surface and would render the removal of the tumor unsafe. I suggested the removal of the ovaries. She entered my private hospital September 15, 1885, for that purpose. Drs. W. H. Warder, Boysen, and Martin assisted; Drs. C. B. Warder and Stultweather were present. An incision three inches long was made, and finding the tumor free from the bladder, with cervix sufficiently long to serve for a pedicle, the incision was extended to within an inch of the umbilicus above and symphysis below, and the tumor with some difficulty withdrawn. In the absence of a Tait's clamp, which had been ordered some days before, the pedicle was constricted by a wire-écraseur and the tumor with the ovaries removed. The pedicle was then transfixed with two steel pins and tied in three sections with strong silk thread. The peritoneum was

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fastened to the pedicle below the ligatures, and the wound closed with silk-gut sutures, the pins holding the stump outside. The wound was dressed with sublimated gauze and absorbent cotton. The operation was followed by some shock (temperature 97.4°, pulse 104), from which she soon rallied. She complained greatly of pain. A half grain of morphia had been given by suppository, and three hypodermic injections of morphia, one-quarter grain each, were given during the afternoon, before the pain was relieved.

At 3 A. M. of the 24th I was called by the nurse, who reported bleeding from the stump. Three ounces of blood had been lost. By aid of Dr. Warder, a Wells's clamp was applied below the pins, apparently controlling the hemorrhage; but it recurred later in the day from the angles and from beneath the clamp. By this time the Tait's clamp had arrived, and the patient was etherized, the lower three sutures removed, the pedicle drawn up, the clamp applied so as to control it completely, and the wound again closed. The wound had united throughout. Temperature had reached 100.6° at 9.30 P. M. The highest, subsequently, 101.6°, was in the afternoon of the 25th, and it became normal on the 28th. Upon removing the dressings, on the 27th, some pus welled up about the pedicle. As the skin was irritated, the dead pedicle was cut away, until the clamp slipped off. There resulted, of course, considerable retraction of the stump, but the sloughed tissue is now nearly cleared away. The patient suffers no pain or discomfort; temperature normal. The tumor was situated in the anterior wall and fundus of the uterus, and projected into the uterine cavity.

DR. PARISH remarked that removal of the ovaries had given such good results in cases of uterine fibroids, and was comparatively so free from danger, that he would like to hear from Dr. Montgomery his reason for his choice of operation.

DR. MONTGOMERY replied that the tumor filled the pelvis and pressed upon the bladder and rectum, causing great and constant distress. As diminution of the size of the fibroid tumor is not a certain result of oöphorectomy, and as all the circumstances were in favor of the major operation, he decided upon it as the best one.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, October 23, 1885.

THE PRESIDENT, THOMAS G. RODDICK, M.D., IN THE CHAIR.

DR. WM. GARDNER exhibited the following pathological specimens:

(1) A UTERUS SEPTUS WITH ATRESIA AND HÆMATOMETRA OF THE LEFT CHAMBER.

This specimen was exhibited at the meeting of the Canada Medical Association, at Chatham, Ont., and the description of it has already appeared in THE MEDICAL NEWS.

(2) A DERMOID OVARIAN CYST,

removed 15 days previously from a woman 47 years of age, some years past the menopause, and the mother of several children. The tumor was about the size of a large adult head and contained a grayish-yellow ochre-colored fluid, a bunch of hair, one tooth, and a plate of bone in the cyst wall. It had been of slow growth, causing very little in the way of symptoms, and was removed because such patients are in constant danger of peritonitis, bursting or suppuration of the cyst, and of axial rotation with consequent gangrene and hemorrhage within the cyst. Axial rotation of the tumor, Dr. Gardner remarked, is an accident to which dermoid cysts are especially prone. The patient made a good recovery.

(3) A SMALL SOLID OVARIAN TUMOR OF THE LEFT SIDE,

removed a week previously from a married woman, æt. 56, the mother of several children and five years past the menopause. The tumor measured 3 by 2½ inches, and was very hard and heavy. It contained a cyst as large as a small hen's egg, which was accidentally ruptured during the operation. The cut surface of the tumor was very firm, not markedly fibrous, and of a pale yellow color. The disease was limited to the ovary. The pedicle was slender, easily ligatured.

There was general enlargement of the fundus of the uterus, which also presented a nodulated projection. De. Wyatt Johnston had examined the tumor microscopically and found in the growth two different structures: the outer portion, which formed the bulk of the tumor, consisted of epithelial cells arranged regularly in circles and embedded in a matrix of fibrous tissue. The cells are uniform in size and do not infiltrate surrounding parts.

The central portion of the tumor had the same non-infiltrating epithelial cells, but the matrix consisted entirely of embryonic connective tissue, with abundant young spindle cells and nuclei. Dr. Johnston regards the tumor as non-malignant, for from its general appearance it looked as if the younger portion might be maturing into the old rather than that the more mature was having sarcomatous tissue added to it.

Dr. Gardner went on to say, that solid ovarian tumors are exceptionally interesting because of their rarity and frequent malignant nature; whatever this nature, if there be no evidence of infiltration of surrounding tissue, they ought to be removed. The propriety of this can only be determined by abdominal section. There is ample evidence, from the experience of Sir Spencer Wells and others, that unmistakably sarcomatous tumors of the ovary may be removed without recurrence for many years or indefinitely.

EXTIRPATION OF THE KIDNEY.

DR. HINGSTON exhibited a kidney which he had removed last August from a young girl aged 18. She had for some time complained of severe pain in the region of the left kidney and came to Dr. Hingston for relief. On examination the kidney was found enlarged and freely movable. Removal was decided on and the operation was performed. The lumbar incision was employed. No difficulty was experienced in the operation, there was no hemorrhage and the organ was easily enucleated. The girl made a rapid recovery. On examining the removed kidney it was found to be sacculated and filled with creamy fluid. The pelvis was filled with fibrous tissue and the ureter was occluded, being merely a fibrous cord. No vessels could be seen entering the hilus. It was probably a case of disorgani-

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zation of the kidney due to congenital occlusion of the ureter.

EXTIRPATION OF KIDNEY FOR CALCULOUS PYELITIS.

DR. FRANCIS J. SHEPHERD showed a kidney which he had removed from a woman some five weeks before. The history of the case is as follows:

Eliza T., æt. 24, married, was admitted into the general hospital under Dr. Wilkins, on the 10th of August, 1885, suffering from emaciation, general weakness, and a painful swelling on the left side of the abdomen. Family history threw no light on the case, no consumption. Had herself always been healthy up to nine months before entrance into the hospital; at that time she began to lose flesh and to have pains in left side of abdomen which occasionally extended down to the thigh, but these were never severe. Has had four children and after birth of last child, five months ago, first noticed a tender swelling or rather fulness on left side of abdomen; at this time she noticed her urine was milky and that a deposit was thrown down when it was left standing for a short time. Had never passed any blood or had attacks of renal colic, nor had she ever had chills or sweatings.

When admitted into the hospital she was in a condition of extreme emaciation and very weak, pulse was 140 and temp. 100° F. She had no cough and her lungs were probably healthy. She had, however, frequent and painful micturition and the urine contained large quantities of pus; some days, however, it would be quite clear. On examining the abdomen the superficial abdominal veins were found much enlarged and a distinct fulness was seen in the left lumbar and iliac regions. Palpation revealed a large tumor which extended across the abdomen to within one inch of the umbilicus, above it reached as high as the spleen, and below could be felt reaching down as far as the brim of the true pelvis. By bimanual palpation the tumor could be grasped between the hands and moved slightly, no fluctuation could be distinctly made out. The tumor was very tender on pressure.

Towards the latter end of August, Dr. Wilkins transferred the case to the surgical wards under Dr. Shepherd. At that time her condition was better than on entrance and she had gained flesh. The tumor had not increased in size since she had been under observation, but her pulse continued rapid and her temperature ranged from 99° to 101.5° and other symptoms were much the same.

After a consultation with his colleagues Dr. Shepherd decided to explore the kidney, and to perform either nephrotomy or nephrectomy, as would be determined by the condition of affairs.

On September 17th, the patient having been etherized, the right kidney was first examined by palpation and made out easily to be normal in size and apparently healthy; it was freely movable. An incision was then made, as for colotomy, in left lumbar region, between the last rib and crest of the ilium, commencing at the outer edge of the erector spinæ muscle, and extending outwards for some five inches, the kidney tumor was soon reached and found to be freely fluctuating; it was aspirated and some stinking pus withdrawn; a needle was passed in and soon came in contact with a calculus. The tumor, which was somewhat larger than a child's head, was now freely incised and a large quantity of foul-smelling pus evacuated through the opening thus made. The finger was introduced and the pelvis was found filled with a large calculus; owing to the disorganized state of the kidney and the bad general condition of the patient it was decided immediately to extirpate the kidney—the upper end was first freed without difficulty, and then the lower end and posterior portion. These latter portions were freed with some difficulty, especially the lower end, which reached far down towards the true pelvis. To enable the hand to get in freely, the original incision was enlarged by incisions above and below at right angles, and several more incisions made into some of the pus-filled saccules. Now, the kidney was easily delivered through the wound and the vessels entering the hilus tied with silk and divided. The ureter, into which a portion of the calculus extended, was then ligatured and divided, and after cutting some strands of cellular tissue with scissors the kidney came away. Whilst freeing the kidney there was considerable venous hemorrhage from the torn vessels at upper and posterior part, which, owing to the presence of the tumor, was much engorged. This was stopped by sponge pressure.

The large cavity caused by the removal of the kidney was quickly filled up by the intestines pushing forward the peritoneum. The cavity was washed out with bichloride 1 to 2000, and a large drainage tube introduced. The wound was brought together with catgut sutures and dressed with iodoform powder and sublimate jute pads.

The patient, although suffering considerably from shock, recovered well from the operation. She had some vomiting, which was controlled by champagne, and for the first twenty-four hours had brandy and beef-tea per rectum.

During the first night there was considerable oozing, and the dressings had to be changed the second day. At this dressing the drainage tube was much shortened. More than thirty ounces of urine were passed the day after operation. Her pulse, which after the operation was very weak and 160, soon fell to 120, and temperature after first day never reached 100° F. The woman rapidly recovered, and the wound with these dressings healed by first intention, except at the point where drainage tube had been. At the end of the third week she was able to wheel herself about the ward in a chair, and during the past week has been walking about. Her appetite is good and she is rapidly regaining flesh. The daily amount of urine excreted is from thirty-five to forty ounces.

The kidney was now exhibited and was seen to be of large size and composed of a number of saccules which had contained pus; the pyramidal portion had all disappeared, and the cortex was about quarter of an inch thick. The pelvis was filled with a large oxalate of lime calculus which extended down into the ureter, almost completely blocking it up. In one of the saccules at the lower end of the kidney was a small round calculus the size of a marble. Dr. Shepherd said about a pint of pus had been removed from the kidney.

DR. FENWICK congratulated Dr. Shepherd on the success of his case, and said that it had never been his fortune to remove a kidney, although he had many times seen it whilst performing colotomy, and had occa-

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sionally cut down on it for abscesses in its neighborhood. He had always thought that there was not much difficulty in the operation, and that if the patient survived the shock the prognosis as to recovery was good.

DR. HINGSTON asked why Dr. Shepherd did not remove the stone and leave the kidney, and why he cut the quadratus lumborum muscle.

THE CHAIRMAN said he had been present at the operation, and thought that Dr. Shepherd had acted properly in removing the kidney, as the woman's condition was such that she could not have stood the drain which must have still gone on had the stone merely been removed; besides, removal of the stone could not have been effected without further serious injury to the organ. He was pleased to find how much more room was obtained by making incisions at right angles to the first one, and how easily the kidney was delivered when this was done. He himself had never performed nephrectomy, though some two years ago he had performed nephrotomy in a case of scrofulous pyelitis; the patient was relieved by the operation, but subsequently died of phthisis.

DR. SHEPHERD, in reply, said that he did not think removal of the stone could have been easily accomplished without so much injuring the kidney as to render it useless; as it was, the kidney was so disorganized that he did not think it worth preserving, and the woman's condition before operation was so bad that he thought complete removal of the source of disease was by far the best procedure. He had cut the quadratus lumborum muscle so as to get more room posteriorly. He always did so when performing colotomy, and it never interfered with good result of the operation. Dr. Shepherd considered the operation more dangerous than difficult.

DR. TRENHOLME reported that the two cases of

EXCISION OF THE UTERUS

he had brought before the Society some weeks ago were doing well (one excision having been for uterine fibroid, and the other for cancerous disease).

CORRESPONDENCE.

BANDAGE FOR THE FIXATION OF THE HUMERUS AND SHOULDER GIRDLE.

To the Editor of THE MEDICAL NEWS.

SIR: Dr. Cabot's note in your issue of October 31st, on the bandage for fixation of the humerus and shoulder girdle, described by Dr. Dallas, leads me to say that in my experience the object of the bandage, so far as it relates to making "pressure upon the top of the shoulder and at the same time driving the humerus strongly up toward the socket," can be very effectually and, I think, more conveniently attained by a strip of adhesive plaster passing from a point between the shoulder blades, over the top of the shoulder, down the front of the arm, under the elbow, up the back of the arm, and over the shoulder again, to the chest in front. I have used this dressing in dislocations of the acromial end of the clavicle, fracture of the clavicle close to that joint, and in fracture of the humerus high up without displacement, and have been entirely satisfied with its action. A case of the first-named injury successfully treated in this manner was presented to the New York Surgical Society about two years ago.

Very truly yours,

LEWIS A. STIMSON,

NEW YORK, 34 EAST THIRTY-THIRD ST.,
November 2, 1885.

THE CARE OF THE PERINEUM DURING LABOR.

To the Editor of THE MEDICAL NEWS.

SIR: In your report of the proceedings of the late meeting of the American Gynecological Society (issue of October 3) Dr. T. A. Reamy, of Cincinnati, contributed a paper upon the care of the perineum during labor, in which he proposes to protect it by a "towel or bandage ten inches wide and forty or fifty inches long, carried around the buttock of the patient and over the hemisphere produced by the bulging perineum, with the upper edge on a level with the fourchette, and the ends given to assistants, who are instructed to make traction during the pain, in the manner the accoucheur may direct."

This procedure is referred to as being wholly new, and certainly it has not been described in any text-book or journal that I have been able to consult, but in the address in Obstetrics at the meeting of the Medical Society of the State of Pennsylvania, May, 1884, I referred to a method of protecting the perineum during labor, based upon precisely the same principles, though differing slightly in detail.

I quote from the address as published in the *Transactions:*

"To carry out the points made by Playfair and Goodell, viz., to relax the tissues of the perineum, I have recently used a towel about four feet long, folded lengthwise to a width of six or eight inches, passed in front of the pubes and over the trochanter, the free ends secured by two strong safety pins, over a firm pad resting against the os coccygis and anal orifice. The effect of this is to crowd the surrounding tissues in the direction of the vulvar outlet, securing all the relaxation that is possible, at the same time keeping the head pressed towards the pubic arch. The action of this pad and band is pleasant to the patient and effectually protects the coccyx from injury, which, as is well known, is often the cause of that most serious malady, coccygodynia. At the moment of greatest distention, the action of the band should be aided with the left hand of the accoucheur, while the other resists the too rapid advance of the head, by direct and firm pressure."

I am not surprised that my views had not met the eye of Dr. Reamy and others who participated in the discussion, for papers once in the *Transactions* are securely entombed. Yet, as a matter of history, I think it right to call the attention of your readers to the views advanced in that address.

Respectfully,

JACOB PRICE.

WESTCHESTER, PA., October 21, 1885.

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TYPHO-MALARIAL FEVER.

To the Editor of THE MEDICAL NEWS.

SIR: In THE MEDICAL NEWS of September 13, 1884, Dr. R. Bartholow had an article upon typho-malarial fever. It was my intention at that time to reply to Dr. Bartholow and treat the subject fully, but various causes combined to prevent the consummation of my desire, and only a preliminary note is here presented. As bearing upon the question so positively settled in the closing sentence of that communication, I wish to present for consideration some facts concerning the malarial fevers of the far West, intermittent and continued, as they exist along the slopes of the backbone of the continent—*i. e.*, the Rocky Mountain Range, its spurs and table lands.

Dr. Bartholow lays down the following propositions, which I alter somewhat from their arrangement in his article: "Typhoid is the fever of old, of cultivated countries and dense populations; malarial, of new countries and sparse populations.

"Typical typhoid is capable of many modifications and clinical variations, under climatic and other conditions, but its morbid anatomy *never* varies. There is no special type of fever entitled to the name typho-malarial."

In reply to these assertions, I will state that the continued form of the so-called "mountain fever" is a continued remittent fever, resembling typical typhoid in its clinical history; but wanting the typical and clinical course of pure typhoid; each period not corresponding to a certain degree of fever, therefore the diagnosis cannot always be made from the fever course. Its duration is from two to five weeks, occasionally longer. It is a fever of *new* and *sparsely populated* countries; its habitat, aptly expressed by its popular name, is in the mountains and mountain valleys, at varying altitudes, where the soil is dry and rocky, with no subsoil water, and where it is utterly impossible that there should have been any contamination of the surface ground by typhoid germs, within the memory of the races now peopling this continent. It prevails simultaneously with the intermittents, and apparently is contracted under the same conditions. It attacks, chiefly, those persons outside of large settlements, such as wood-choppers, prospectors, teamsters, ranchmen, etc. It is also occasionally found in the towns, but those whom it there attacks have usually passed through a period of extra-mural exposure.

The morbid anatomy of "mountain" fever *never varies*, and microscopically is that of pure typhoid, *i. e.*, infiltrated mesenteric glands, enlarged spleen, with ulceration of Peyer's patches. This disease first came under my professional observation in 1877, and in that year I made my first autopsy of a case of mountain fever. Since that time exceptional opportunities have been accorded me for observing and treating the disease, and I have made thirty post-mortem examinations of the viscera of patients dead of this malady.

If Dr. Bartholow is correct in his statement that typhoid fever "is the fever of old, of cultivated countries and dense populations; unchangeable in its morbid anatomy, and that this morbid anatomy is an infallible proof of this disease;" then, as a resultant of my own experience, having, in the last five years alone, treated nearly four hundred cases of mountain fever both in hospital and private practice, invariably finding the same post-mortem lesions as exist in the "pure typhoid of old settlements," I am forced to the conclusion that either typhoid fever is *not* essentially the disease of old communities and dense populations, and does not always originate there; or, that there is a disease, in many of its clinical manifestations, closely resembling typhoid, presenting identically the same pathological appearances, which has its origin and home far from towns and settlements. The doctrine of descent and development is as applicable to the microörganisms causing disease, or to disease considered as an entity, as to any part of the animal or vegetable kingdoms.

May not this frontier fever, this continued malarial "mountain" fever, be the uncivilized progenitor of the typhoid of civilization?

In the course of the ensuing year I hope to be able to publish a more extended account of this disease with clinical history of cases, etc.

Respectfully yours,

G. E. GOODFELLOW, M.D.

TOMBSTONE, A. T., October 9, 1885.

NEW INVENTIONS.

A NEW BINAURAL STETHOSCOPE.

BY WILLIAM A. EDWARDS, M.D.,

FIRST ASSISTANT DEMONSTRATOR OF CLINICAL MEDICINE IN THE UNIVERSITY OF PENNSYLVANIA, MEDICAL REGISTRAR PHILADELPHIA HOSPITAL.

THAT binaural stethoscopes have not received from American physicians the attention that they demand is in part due, I think, to the lack of efficient and handy instruments. The majority of practitioners will not use an instrument that is bulky, inconvenient for ready carriage from patient to patient, or is awkward in its application.

Professor William Osler has had constructed a binaural stethoscope by Hawksley, of London, of which the accompanying cut is almost an exact counterpart, excepting two essential changes in the mechanics of the instrument, which have been added by Mr. Yarnall, the instrument maker.

The instrument (Fig. 1) is constructed in two separate parts; two fixed converging nickel tubes, and two flexible rubber tubes. The bone buttons on the nickel tubes are to be placed in the external auditory meatus; the buttons

FIG. 1.

are removable, and are constructed of various sizes, in order to fit each individual ear, which, I consider, is an essential point for the successful use of the instrument.

At the lower converging ends of the fixed nickel tubes is placed a rubber band, in order to hold the instrument firmly in the ear when in use.

Two cloth-covered rubber tubes, converging to a com-

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mon bell-shaped, hard-rubber cap, which is to be placed on the patient's chest, complete the instrument; and, as such, Professor Osler and myself are in the habit of recommending it to the consideration of the students in the University.

I would formulate the points in favor of the instrument about as follows:

1. Its lack of "bulkiness," so common in all other binaural stethoscopes.

2. Its property of disarticulation, rendering the instrument just about the size of a single or monaural stethoscope (Fig. 2).

FIG. 2.

3. The facility with which it can be applied to the chest, not necessitating the practitioner's assuming constrained or uncomfortable attitudes.

4. The fact that this instrument allows the physical diagnostician to observe the locality that he is studying during the operation, and also enables him to avoid undue pressure.

5. The clearness with which it conducts sounds to the ear, and its great utility in the study of indistinct valvular disorders and hæmic murmurs.

The instrument is made in Philadelphia, at 115 South Tenth Street, by Mr. E. A. Yarnall, who calls it the "University Stethoscope."

300 SOUTH THIRTEENTH ST., PHILADELPHIA.

AN IMPROVED FORM OF REFRACTION OPHTHALMOSCOPE.

BY EDWARD JACKSON, M.D.,
CHIEF OF THE EYE CLINIC IN THE PHILADELPHIA POLYCLINIC.

THIS is an improvement, over earlier forms of refraction ophthalmoscope, in the arrangement of the lenses. The generally used Rekoss disk is discarded; and the lenses arranged in two narrow straight slides, which move immediately behind a rectangular tilting mirror of the usual focal length. The slides extend downward within the stem of the instrument; and at the lower extremity are furnished with milled projections, by which they are moved. The accompanying representation of the instrument renders a more minute description superfluous.

The lenses are selected and placed, five in each slide, so as to give single glasses or combinations of the following refractive powers:

Convex 0.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 6, 7, 8, 9, 10, and 11 dioptrics.

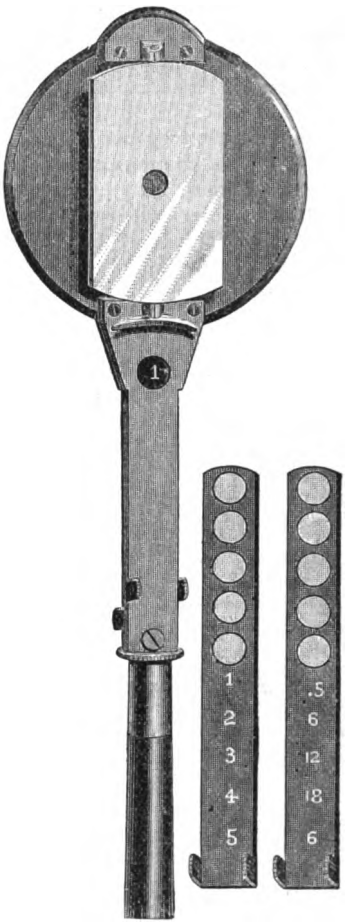
Concave 0.5, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, and 18 dioptrics.

The instrument is believed to possess these advantages:

1. It is the lightest, thinnest, simplest refraction ophthalmoscope yet devised.

2. The whole of this most valuable refractive series is obtained by a slight movement of the forefinger, without ever taking the instrument from the eye.

3. The hand holding the instrument can be further from the patient's face than is possible when the Rekoss disk is employed, unless recourse is had to some more complicated mechanism such as the toothed wheel of Fox's and Juler's ophthalmoscopes.



To the makers, Messrs. Queen & Co., of Philadelphia, I am indebted for important suggestions, and the mechanical working out of the instrument.

A LARYNGEAL APPLICATOR.

BY ALEXANDER W. MAC COY, M.D.,
OF PHILADELPHIA.

THE accompanying figure represents a laryngeal applicator, for applying certain caustics, after fusing them on the roughened aluminium point.

The features of superiority claimed for the instrument are the following:

1. A double-acting lever movement.

2. Uncovering of the stylet by drawing the tube backwards instead of *pushing out* the concealed stylet (the usual method), and thereby avoiding the aberration at the point.

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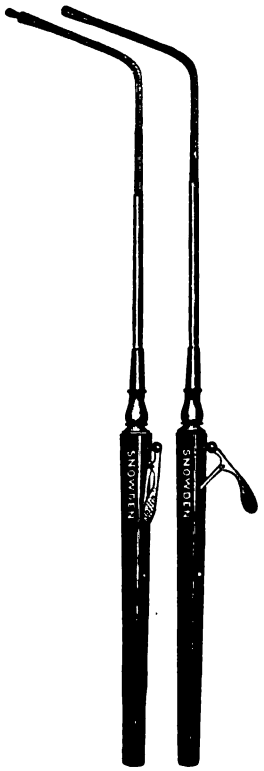

3. Flexibility of the stylet and tube, allowing a variety of positions, and diversity of uses.

4. Self-recovery of the tube by a spring in the handle.

NEWS ITEMS.

THE NEW YORK POLYCLINIC. — The necessity for post-graduate instruction seems increasingly felt, as this institution opens this year with a larger class of practitioners on its roll of students than ever before, and since its opening three years ago, over 600 physicians have registered in the various classes.

PUBLIC OPINION ON THE CONGRESS ORGANIZATION.—Discussion, so far, has done little to stay the ruinous course pursued by the malcontents of the New Orleans meeting in regard to the International Congress. The new combinations of the Chicago and New York Committee meetings have only made a bad matter worse.

When we look back upon the whole affair from this standpoint, we cannot help feeling that those gentlemen who represented the International Medical Congress made a very unwise move in asking the American Medical Association to take any part in the construction of the forthcoming meeting. These gentlemen would have done far better by taking the whole responsibility upon themselves, and this course would have been satisfactory to the members of the last Congress, the evidence of which we have in Sir James Paget's letter to Dr. Hays.

The discourtesy of the American Medical Association towards the original committee seems not to occur to the reconstruction committee, and there can be but one interpretation of the whole matter—the new committee intends to organize a Congress upon a basis so objectionable that it has already divided the profession into two parties. If the gentlemen composing this new organization are willing to undertake it, they cannot be prevented, but it would be well if they could be, both for the success of the Congress and the unity of the profession.—*North Carolina Medical Journal.*

The belligerent members of the American Medical Association claimed and exercised the right to revise, amend, and alter the work of the original committee on the International Congress, and they did alter it with a vengeance by virtually kicking the old committee out of office and starting over again. Now the new committee do not propose to have any one criticise, revise, amend, or alter their work, and consequently have resolved "That the actions of this Executive Committee are final, not being subject to revision, amendment, or alteration, either by the Committee of Arrangements or the American Medical Association." We do not believe this resolution, however, unanimously adopted by the committee, will save them from a general overhauling at the St. Louis meeting in May, 1886.—*Peoria Medical Monthly.*

The unhappy Committee on Organization, like Sisyphus, is still at its work, which falls down as fast as it builds it up. No committee has ever labored under such difficulties. It was unfortunate in its origin, and has been unlucky ever since. It inaugurated at Chicago a narrow and illiberal policy, which very soon resulted in disaster. Resignations began to decimate the rank and file of the various sub-committees and sections, and has continued ever since. Many new appointments have been made, but the process of disintegration exceeds the work of repair. The result, at this rate, is inevitable.—*The New Orleans Medical and Surgical Journal.*

PRECAUTIONS AGAINST SMALLPOX.—The Wisconsin State Board of Health has just issued a circular from which the following extract is made:

It is matter of common knowledge that smallpox in virulent form has for some time past been prevailing in Canada, from which it has been hoped to protect the United States by the rigid inspection of all persons passing from that country into this. Notwithstanding this precaution, smallpox has very recently appeared in this State in a family direct from Montreal, and before the existence of the disease was known, many persons had been exposed to the contagion. It is hoped that in this case, as in a previous recent outbreak of this disease (also brought from Montreal), vigorous measures may prevent an epidemic, but these occurrences, and the fact that smallpox has lately appeared in several other States, should be accepted by all health authorities, and by the public, as a sufficient warning that this is a time of special danger, and that smallpox may at any time be brought to any community.

The State Board of Health earnestly advises all persons who have not been successfully vaccinated within five years, promptly to secure, both for their own sakes and as a duty they owe to the public, the protection from smallpox which a recent successful vaccination confers.

Throughout the State, local boards of health are advised to watch carefully for a period of two or three

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weeks from the date of their arrival, all newcomers within the territory under their supervision, and, especially, those coming from an infected district, making sure if any sickness occurs in such persons or families, that its character be known. It is especially advised that in all places where lumbering operations are carried on, or in which large bodies of men are employed in any capacity, every effort should be made to secure their general vaccination, and it would, in many places, be both wise and economical to have this done at public expense.

THE FAC SIMILE OF HARVEY'S MS. LECTURES.—As our readers have been informed, Harvey's MS. Lectures will soon be published in fac simile of the author's handwriting, accompanied by an interleaved transcript in ordinary printer's type. We learn from the *Medical Times and Gazette*, that the work is making good progress, and that Messrs. Churchill have every expectation of issuing it to the subscribers early next year. The photographic reproduction has been very successful, so that many of the MS. passages come out more legibly than in the faded and time-worn original, a result which has not a little facilitated the labors of the transcriber.

THE ROMAN SANITARY CONFERENCE.—The question of the reassembling of the International Sanitary Conference at Rome is, according to *The Lancet*, still unsettled. It will be remembered that as soon as the Technical Commission had presented the result of its labors to the full Conference, that body was adjourned until November 16th. According to the *Popolo Romano*, some of the States which were represented at the Conference in May last have not yet sent in their adhesion to the proposal for its reconvocation.

DECLINE OF THE CHOLERA IN FRANCE.—U. S. Consul, Frank H. Mason, at Marseilles, France, writes to the Department of State under date of October 1, 1885, as follows:

Since the last sanitary report from this Consulate, September 9th, the cholera, which had at that time spread throughout a large part of this district, has gradually subsided, and the epidemic may now be said to have reached its final stage. There are now recorded from three to five choleraic deaths per day in Marseilles, but they are nearly all among the fugitives who have returned to their homes without due precautions in respect to ventilation and disinfection, and have been imprudent in their diet or habits.

The record of deaths from Asiatic cholera in this city from the commencement of the epidemic to the last day of September inclusive, is as follows:

Month of July	44
Month of August	956
Month of September	230
Total	1230

These are the figures officially given by the sanitary authorities. It is certain, however, that for the period from the 30th of July until the 21st of August, at which date the city journals began publishing the death list, they are understated, and that the real number of deaths from cholera during August was 1174 instead of 956. The difference between these two totals records the choleraic deaths registered simply as "children," and the numerous persons who died from complications of cholera and other diseases, under such conditions that the attending physician felt justified in reporting the death as one which would not preclude an ordinary funeral.

The total deaths from all causes for August and September numbered as follows:

For August.

From cholera	956
" typhoid fever	100
" typhus fever	4
" measles	10
" whooping-cough	11
" scarlatina	5
" smallpox	34
" diphtheria	22
" pulmonary consumption	131
" convulsions	87
" apoplexy	44
" diarrhœa	24
" gastroenteritis	88
" stillborn	75
" accidental	8
" meningitis	120
" cerebral congestion	42
" pneumonia	48
" enteritis	124
" uterine cancer	12
" suicides	10
" all other causes	346
Total	2301

The large mortality ascribed in these tables to "convulsions," "cerebral congestion," and "apoplexy" may be, in a great measure, ascribed to cholera, those sudden and violent maladies being used as euphemisms for the Asiatic malady under the circumstances above described.

The details of the mortality for September are not accessible. The record kept at this Consulate shows a total list of 1082 deaths, of which 230 were due to cholera. On the basis of these official statistics, the epidemic of 1885 has claimed, therefore, down to the present date, 1230 victims, or two-thirds of the whole number that perished from cholera during the scourge of 1884. This is an unusually fatal record for a second year's visitation at Marseilles, the mortality of these secondary outbreaks having been uniformly less than half that of the preceding summer.

At Toulon, the course and subsidence of the malady have been precisely similar to that in Marseilles, except that it began a month later, and was relatively more fatal during the worst period of the epidemic. The most fatal day at Toulon was the 27th of August, on which date there were recorded in that city 42 deaths from cholera.

At Marseilles, the scourge reached its highest mortality on the 21st of the same month, with a record of 69.

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On the 11th of September the cholera death-rate at Toulon had declined to six per day, and since then it has fluctuated from one or two, and some days more, up to seven or eight daily. These sudden and temporary recrudescences have been ascribed wholly to the return of fugitive families to their homes, which had remained closed or badly ventilated during their absence, and they enforce anew the importance of those precautions which have been described in previous reports of this series as imperative under such circumstances. As a principle, a person having once left an infected city, should remain away until the last trace of the epidemic has disappeared, and then return only to lodgings thoroughly renovated and prepared.

At Cette, where the cholera was announced in these dispatches as having appeared on the 6th of September, the disease was promptly suppressed, but as it has continued to prevail to some extent at various points in the Department of Herault and Garde—in the former of which Cette is located—I have thought it prudent to require the Consular Agent at that port to employ a Medical Inspector, and continue the careful examination of all vessels clearing from that port for ports in the United States.

It is a pleasure to be able to close the record of this epidemic without including among its victims the name of any citizen of the United States. This is the more gratifying in that the malady was, particularly in its earlier stages, peculiarly fatal to foreigners, notably English and Scandinavians.

The few American families who reside here are mostly in circumstances which enable them to spend the hot months away from the city. Such as remained here have, as usual, taken all wise precautions, and have avoided the carelessness and excesses which are in so many cases fatal to other foreigners.

Two American vessels were in port during the early and most fatal stage of the epidemic. Upon depositing their papers at the office, their captains were informed of the actual sanitary condition of the port, and urged to see carefully to the food of their men, keep them on board at night, and prohibit drinking and all other excesses. They were also provided with the formula of a remedy to be used immediately in all cases of diarrhœa or choleraic attack.

Both vessels, after discharging cargoes here, went to Hières, a small port near Toulon, where they loaded with salt for Boston and New York. While here and at Hières, there were in all, on both vessels, nine cases, including both captains, of acute choleraic diarrhœa. One of these masters was seized during the night while his vessel was moored in the worst part of the old port, with profuse vomiting and dejections, cramps and chills, all the symptoms of Asiatic cholera which then prevailed among the shipping and on shore in his immediate neighborhood. He used the remedy, called no physician, and two days afterwards his vessel cleared for Hières. All the nine cases on board both ships were similarly treated, and all survived, though it was afterwards found necessary to return one of the sailors to a hospital in Marseilles, where he ultimately recovered.

The usual result of experience is to inculcate extreme diffidence with reference to the many alleged specifics for cholera. There are circumstances under which all remedies seem alike powerless and ineffective. But if the experience of the past summer can add any therapeutic suggestion to what has been said in previous reports of this series, it would be to recommend the remedy which was used in the cases of the American captains and their crews. It is the prescription of the lamented Dr. Valentine Mott, of New York, one of the foremost physicians of our country. It embodies the results of his experience in three successive epidemics of cholera, and was used by his own son during the pestilence of 1884 at Toulon and Signes, with extraordinary results. Its formula is:

Tincture of rhubarb	10 parts.
Extract capsicum	2 "
Laudanum, Sydenham . . .	4 "
Camphor	℥ "
Syrup of ether	50 "
Syrup bitter orange peel . . .	50 "

Sig. One teaspoonful in a little water, and repeat until symptoms cease.

It cannot be said that the epidemic of this year has been fertile in scientific results. Little, comparatively, has been done either here or at Toulon in the direction of experimental or scientific inquiry. The verdict of last year's investigation was, "We have shown what cholera is *not*, but we cannot tell what it is." With that result and the generally accepted overthrow of Dr. Koch's theory, the medical men of this region, while awaiting the probably similar collapse of the Ferrán inoculation process in Spain, have been content to treat the epidemic of this year not as an opportunity, but as an affliction, to be fought down as quickly and quietly as possible.

It is doubtful whether the final statistics will show that any substantial progress has been made in treating the most malignant forms of the disease, or that the proportion of deaths to cases has been reduced so much as one per cent. by all the experience of those two sombre years. The one effective treatment for Asiatic cholera is to avoid it. The remedies are intelligence, temperance, correct living—that individual religion of the body which is an essential part of human civilization—supplemented by the improved drainage, ventilation, and municipal cleanliness which are the basis of modern sanitary science. France, Italy, and Spain, the Latin nations of the Mediterranean, have suffered as examples to other and less exposed countries, of the negligence which becomes perilous in the presence of cholera; and it will be unpardonable if the lesson is not thoroughly learned and practically utilized.

PASTEUR'S DISCOVERIES IN INOCULATION FOR HYDROPHOBIA.—A recent cablegram to the *New York Herald* states that Dr. Louis Pasteur's experiments have resulted in a most brilliant success. At perhaps the most important sitting held by the Academy of Sciences, Dr. Pasteur thus described the process of cure by means of a rabbit inoculated with the fragment of a tissue taken from the spine of a rabid dog. The inoculation of the poison occupied fifteen days. As soon as the first rabbit inoculated was dead, a portion from its spinal marrow was, in turn, inoculated into a second rabbit, and so on until sixty rabbits had been inoculated. At each successive inoculation the virus increased in potency, and the last period of incubation did not occupy more than seven days.

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Having ascertained that exposure to dried air diminished the virus, and consequently reduced its force, Dr. Pasteur supplied himself with a series of bottles of dried air. In these bottles he placed portions of inoculated spinal marrow at successive dates, the oldest being the least virulent and the latest the most so. For an operation, Dr. Pasteur begins by inoculating his subject with the oldest tissue, and finishes by the injection of a piece of tissue whose bottling dates back only two days, and whose period of incubation would not exceed one week. The subject is then found to be absolutely proof against the disease.

A boy, 12 years of age, named Meister, who had been bitten fourteen times, came from Alsace with his mother to see Dr. Pasteur. The autopsy of the dog which had bitten the boy left no doubt as to its having suffered from hydrophobia. Dr. Pasteur took the celebrated Dr. Vulpian and a Professor of the School of Medicine to see the boy Meister. These two doctors came to the conclusion that the boy was doomed to a painful death and might be experimented upon. In thirteen days inoculations were made upon Meister with pieces of spinal marrow containing virus of constantly increasing strength, the last being from the spine of a rabbit that died only the day before. Now a hundred days have passed since Meister underwent the last inoculation. The treatment has been thoroughly successful, and the boy is in perfect health. He had been bitten sixteen hours, and had travelled from Alsace to Paris before the first inoculation was performed.

A shepherd boy named Judith, aged 15, was bitten by a mad dog a fortnight ago and has now been a week under treatment. Dr. Pasteur is confident of curing him.

Dr. Pasteur said that it was now necessary to provide an establishment where rabbits might always be kept inoculated with the disease. In this way a constant supply of spinal tissues of old and recent inoculation would always be ready. Before the sitting was adjourned, Dr. Pasteur received an enthusiastic ovation, from both the Academy itself and the public who were present. Among those present I noticed the Grand Duke Alexis, who is a great dog fancier, and M. de Lesseps, who went to hear Dr. Pasteur's report endorsed by Dr. Vulpian.

One of the leading doctors present remarked that the question was whether a man, cured of hydrophobia, could suffer from a second bite—in other words, whether the inoculation of virus was a guarantee against hydrophobia. In answer, Dr. Pasteur states that the malady is transmissible only by bite. If, therefore, by a general compulsory inoculation for several generations, dogs had been made incapable of hydrophobia, the malady would have disappeared, and there would be no occasion to ask whether inoculation had a permanent effect or not. As to the origin of hydrophobia, Dr. Pasteur says nobody in the world can explain its primal causes. As he remarked—perhaps out of politeness—his theory will require study by the profession in order to make it practical, but he emphatically stated that the cure for hydrophobia had been found.

THE GRAEFE MEDAL AND PRIZE.—It was determined by the Heidelberg Ophthalmological Society, soon after the death of Albrecht Von Graefe, to found, in honor of his memory, a gold medal to be awarded every ten years, for the most distinguished work done in ophthalmology. The first medal has just been unanimously decreed by the Society to Professor Helmholtz, of the Berlin University.

After Graefe's death, a prize was also founded by the late Professor Welz, of Würzburg, to be awarded every third year for articles appearing in the *Archiv für Ophthalmologie*, founded by Graefe, which the Ophthalmological Society deemed most deserving of it. The fifth award has been made to Dr. Samuelson, of Cologne, the former prizes having been presented to Professor Leber, of Göttingen, to Dr. R. Weber, of Darmstadt, to Dr. Knies, of Zurich, and to Dr. von Güdden, of Munich.—*Medical Times and Gazette*, October 24, 1885.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, FROM OCTOBER 27 TO NOVEMBER 2, 1885.

MCELDERRY, HENRY, *Major and Surgeon.*—Granted leave of absence for four months from November 1, 1885.—*S. O. 246, A. G. O.*, October 26, 1885.

PATZKI, J. H., *Captain and Assistant Surgeon.*—Appointed member of Board to meet at Forts Jackson and St. Philip, La., on November 5, 1875, to select a site for the new quarters for the advance sergeants at those posts.—*S. O. 230, Department of the East*, October 28, 1885.

TOMEY, G. H., *Captain and Assistant Surgeon.*—Granted leave of absence for two months, to take effect after the return from leave of absence of J. C. Baily, Major and Surgeon.—*S. O. 87, Division of the Atlantic*, October 24, 1885.

EWING, C. B., *First Lieutenant and Assistant Surgeon* (Fort Leavenworth, Kansas.)—To accompany Congressional Committee of which Hon. W. S. Holman is Chairman, in its visit and inspection through Indian Territory.—*S. O. 160, Department of Missouri*, October 21, 1885.

IVES, F. J., *First Lieutenant and Assistant Surgeon.*—Relieved from temporary duty at Fort Laramie, Wyoming Territory, and ordered to Fort D. A. Russel, Wyoming Territory.—*S. O. 106, Department of the Platte*, October 22, 1885.

MORRIS, E. R., *First Lieutenant and Assistant Surgeon* (recently appointed).—Assigned to duty at Fort Bayard, New Mexico. He will continue on detached service under orders of District Commander.—*S. O. 160, Department of Missouri*, October 23, 1885.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE-HOSPITAL SERVICE, FOR THE WEEK ENDING OCTOBER 31, 1885.

AUSTIN, H. W., *Surgeon.*—To proceed to Portland, Maine, on special duty, October 31, 1885.

CARTER, H. R., *Passed Assistant Surgeon.*—When relieved, to proceed to New Orleans, Louisiana, and assume charge of the Service, October 27, 1885.

BATTLE, K. P., *Assistant Surgeon.*—Granted leave of absence for thirty days, October 27, 1885.

WILLIAMS, L. L., *Assistant Surgeon.*—To proceed to Chicago, Illinois, for temporary duty, October 28, 1885.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

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THE MEDICAL NEWS.

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ORIGINAL ARTICLES.

THREE CASES OF ACUTE ENDOCARDITIS; EVIDENCES OF DYNAMIC MITRAL STENOSIS.

BY JOHN GUITÉRAS M.D.,

PASSED ASSISTANT SURGEON, U. S. MARINE-HOSPITAL SERVICE, FORMERLY PHYSICIAN TO THE PHILADELPHIA HOSPITAL.

CASE I.—Lizzie H., æt. 11 years, colored, was admitted to the Charleston City Hospital, on September 15, 1885, suffering with acute rheumatism. On admission it was said that the joint trouble had subsided considerably, but the patient complained of pain in the præcordia, between the shoulders and in the head, and also of some soreness of the extremities. On percussion there was dulness over the entire left thorax. Nothing could be made out by auscultation of the heart, except that its action was irregular.

The temperature ran as follows according to the Fahrenheit scale:

September	15TH.		16TH.		17TH.		18TH.	
	M.	E.	M.	E.	M.	E.	M.	E.
Temperature ...	103°		102.8°	103.6°	102.8°	104°	102.8°	died.

On post-mortem examination the left lung was found adherent to the chest walls, and was the seat of acute pneumonia.

The above notes have been kindly furnished by the Resident Physician, Dr. Eleazer. I saw the heart many hours after the autopsy, and found that the aortic valves were fringed with grayish, soft vegetations which projected into the aorta in the shape of a large cauliflower excrescence. The rest of the heart was, to the naked eye, healthy.

CASE II.—C. W., a seaman, 55 years old, was admitted to the Marine Ward, in the Charleston City Hospital, on September 16, 1885. The following is taken from the notes of my Resident Physician, Dr. Caldwell. The patient has had measles, scarlatina, variola, yellow fever, and malaria. He never had rheumatism, and there are doubts concerning syphilis. He was taken sick in Brunswick, Georgia, a malarious locality, about six weeks ago. His symptoms were fever, dyspnœa, and weakness. Of the former, he states that it came on at nights, and was followed by very profuse perspiration.

I may add that, on inquiry from the wife of the patient, I failed to elicit any history of chronic cardiac trouble. He had had, in fact, no sickness except malaria, for many years. It is interesting also to note that on the day of admission the patient walked considerably about the city, and came twice up two flights of stairs to my office, though, of course, with great difficulty.

Dr. Caldwell adds that on inspection he found a well-marked epigastric impulse, and a faint apex beat in the sixth interspace, one inch outside of the line of the nipple. The pulse was 128. There was moderate general anasarca, more marked in the lower extremities. These had swelled more during the day, causing him some pain. There was a continued murmur heard about the apex. The vesicular murmur was good throughout the chest. The patient was not emaciated, but very pale. His lips were bluish, and the hands quite cold. The urine contained no albumen.

Sept. 17.—I confirmed the above observations, and added the following: There is orthopnœa. The pulse is regular, frequent, of medium size, but gaseous. There is some pulsation at the base of the neck. The heart is beating rapidly, yet the following physical signs can be made out with sufficient accuracy: A continued soft roaring murmur (such as is produced in a shell), with a presystolic accentuation, is heard over the body of the heart. The diastolic portion of this murmur, which is the longest and most prominent portion, loses rapidly in intensity above the third interspace, and is lost at the second right costal cartilage. Downwards the murmur holds its own to the apex, and one inch to the left of it, and disappears rapidly beyond this point. It is heard with equal intensity along the left border of the left ventricle, at the apex, and up along the lower portion of the right border of the heart. The murmur is undulatory, and leads up to a distinct (more distinct, in fact, than anything else about the cardiac cycle) presystolic accentuation, which terminates with a feeble first sound. The latter is accompanied by a murmur similar in character to the diastolic, except that its pitch is a little higher, and that it is heard as distinctly over the body of the heart as at the aortic cartilage. The second sound is not accentuated, but is louder than the first. No murmur is heard at the back.

These signs were taken to indicate, as far as they went, the existence of mitral obstruction, and to leave in doubt the opinion between aortic obstruction and mitral regurgitation.

20th.—Patient growing worse, though he showed every morning a marked remission of the symptoms. By percussion I found that the cardiac dulness was quite distinct at the third left interspace. On the 22d the patient died suddenly of cardiac failure. The dyspnœa had gradually increased, but there was no pulmonary œdema; the pulse, however, had been steadily failing. At the base of the thorax, posteriorly, evidences had been found of some pleuritic effusion.

There were no chills, and no cerebral or other

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embolic symptoms. The following is the record of the temperature, pulse, and respiration.

September	16TH.		17TH.		18TH.		19TH.		20TH.		21ST.		22D.	
	M.	E.	M.	E.	M.	E.	M.	E.	M.	E.	M.	E.	M.	E.
Temperature	. . .	101.2°	98.2°	99.5°	97.6°	99.7	98.5°	101.6°	98.2	100.6	97.8°	. . .	94°	
Pulse	. . .	120	110	108	108	120	114	120	114	140	116	. . .	102	
Respiration	. . .	32	35	44	32	40	42	36	40	44	40	. . .	45	died.

Post-mortem made fourteen hours after death. *Thorax:* Both pleural cavities contained some passive effusion. There was very little congestion of the lungs. *Heart:* There was a slight increase of pericardial fluid. The heart weighed sixteen ounces and a half. The increase of volume affected almost exclusively the left side, both auricle and ventricle. The muscle was of good color, but flabby. The right ventricle contained a large buff-colored clot which extended into the auricle and pulmonary artery. The tricuspid and pulmonary valves were healthy, and the right ventricle was but little dilated, if any. Its wall measured nearly one-quarter of an inch in thickness. The left ventricle contained a similar clot, smaller in size, and, in some places, still blood-colored; it extended into the auricle, the aorta, and coronary arteries, but was not unusually adherent. The left ventricle was dilated, and its wall measured five-eighths of an inch in thickness. The anterior leaflet of the mitral valve was somewhat thickened at the base, but its border was apparently healthy. The border of the posterior flaps was slightly thickened, and the valve did not appear sufficient to close the enlarged auriculo-ventricular opening in the dead heart, but was probably competent during the systole.

The aortic valve was the seat of the principal lesion —an extensive ulcerative endocarditis.[1] The left flap had its internal or right half completely destroyed, so that the external half hung from the outer portion of its line of insertion only. The right flap hung loose at both ends—that is, both extremities of the leaflet were destroyed, and what little was left of the border was thickened, ragged, and soft. The ulcerative process which destroyed the line of union of the right and left leaflets, extended on to the wall of the aorta, involving the inner half of the left sinus of Valsalva up to the mouth of the corresponding coronary artery. The right sinus was free from ulceration, but its valve, as stated above, was the one most seriously involved. A shred of this valve, still holding by its base, lay over, and was slightly adherent to the posterior or intercoronary leaflet. The latter was the most complete of the three, but was perforated near its right extremity, and almost, if not completely so, about the middle near the border. All the torn and ulcerated surfaces were very ragged, and the tissues concerned were quite soft. These surfaces had a reddish-gray color, with here and there a dark spot, apparently of clotted blood, especially in the last-named leaflet. The ulcers were not covered with distinct vegetations. On the ventricular aspect of the semilunar valves, and on the anterior wall of the left ventricle, for a short distance down from the aortic ring, a few warty vegetations, not larger than a pin's head, were found firmly attached to an otherwise apparently healthy endocardium. The arch of the aorta was slightly thickened, and some whitish mottling of atheroma was discoverable through the endothelium. The *spleen* was double the normal size. Its consistency was increased, and the capsule was thickened. The color was rather light and grayish. The trabeculæ were prominent. There were no embolic infarctions. The *liver* was of normal size, but its surface, especially towards the anterior border, was marbled by depressed and grayish contracting acini. The capsule of the *kidney* was slightly adherent, and the glandular structure somewhat indurated. Each kidney contained two urinary cysts, but no embolic infarctions.

This case was supposed to be one of chronic valvular disease with malarial cachexia, and rapid breaking down of the compensatory hypertrophies. It turned out to be one of acute malignant endocarditis, superinduced by malaria in the course of a chronic valvulitis. In the paper of Dr. Osler,[1] these two, malaria and chronic valvulitis, are considered amongst the etiological factors of malignant endocarditis, and they were both present in my case. As to the chronic valvulitis, the autopsy gives unmistakable evidence of its existence. There is no doubt that the man had aortic incompetency for some time previous to this attack; that the train of changes attendant upon this lesion was gradually developing; and that the absence of subjective symptoms, previous to this attack, was due to the compensatory hypertrophy and dilatation of the left ventricle.

In regard to the acute process which thus brought to a speedy and fatal termination the other more chronic changes, our knowledge is far from complete. A certain number of cases are being separated by pathologists from the group of acute endocarditis, and a subsection is being built up, which is designated malignant endocarditis; but the line of demarcation is not yet quite clear. I do not know that it has been determined whether the group is to stand on etiological or anatomical grounds. The etiological question involves the study of certain microörganisms which have been found in connection with the endocardial lesions. Anatomically the lesions of acute endocarditis are divided into ulcerative, vegetative, suppurative, and sclerotic. It is true

[1] In describing the aortic flaps I shall follow that nomenclature which designates two of them, anterior, one of which belongs to the right sinus from which the right coronary artery springs, and is called the right flap; the other belongs to the left sinus, from which the left coronary artery springs, and is designated the left flap. The third is termed posterior, or, better still, intercoronary, because its sinus gives origin to no coronary artery, and lies, of course, between the other two. By adopting this nomenclature, I do not mean to accept it as the most accurate, but it appears to me to be the most convenient for clinical purposes. As to its anatomical accuracy, it may be said of it, that it has the support of the older anatomists, and of Henle, and others, amongst the the moderns. The opposite view is ably defended by Sibson in Reynolds's *System of Medicine*. It is to be hoped that one or the other will be definitely adopted, to avoid confusion.

[1] Gulstonian Lectures on Malignant Endocarditis, by William Osler, M.D., THE MEDICAL NEWS, March 21, 1885.

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that the latter is a chronic form, but there may be peculiarities in the acute process which lay the foundation for sclerotic changes subsequently. The specimens from my two cases illustrate the vegetative and the ulcerative forms.

I proceed now to analyze the physical signs of Case II. They demonstrate the existence of a dynamic auricular systolic murmur.

I shall dismiss, first, a consideration of the second sound, which was evidently produced in the pulmonary valve; and, secondly, I shall dismiss the feeble ventricular systolic murmur by stating that there was nothing found in the necropsy to warrant the opinion that the murmur was mitral regurgitant; I conclude, therefore, that it was aortic systolic.

The diastolic murmur deserves more study. I have just mentioned the feeble ventricular systolic murmur. Now, if the ventricle was capable of producing only a feeble murmur when driving a large volume of blood forwards over the inequalities of the aortic opening, we should not be surprised to find that the arterial systole would fail to produce any murmur when driving only a portion of that blood back into the ventricle. And that it did fail to produce any audible bruit, is shown by the physical signs, for I believe it will be admitted that there was no aortic regurgitant murmur. The reason for this may be further enlarged upon thus: The communication backwards and forwards between ventricle and artery was so free, the difference of blood pressure between the two localities was so little, that the velocity of the backward current towards a ventricle which never emptied itself completely, was not sufficient to produce a murmur. The murmur was then, as indicated by the physical signs, an auricular systolic murmur, occupying the whole of the diastole, and presenting a presystolic accentuation at the end. How was this murmur produced? Let us consider the position of the mitral valve during the diastole in this particular case. The breakwater of the aortic valve had been removed, and the mitral valve was shut down by the recoil of the arterial pressure. The bicuspid, in other words, did the work of the semilunar valves, and kept the reflux of blood from rushing back from the efferent to the afferent cavities of the heart. The mitral valve was closed, therefore, and the blood driven through its long chink by the hypertrophied auricle, produced the diastolic presystolic murmur. This murmur was heard along the ventricular borders, because the sonorous current was not directed straight against the apex as in organic stenosis, but was driven between the chordæ tendineæ, in a direction radiating towards the borders of the ventricle.

It is stated in the notes that the murmur was undulatory. My recollection on this point is not quite clear, and, indeed, I suppose that at the bedside it would have been difficult to determine whether the phenomenon belonged to the whole cycle—that is, whether it was produced by the different elements of the continuous murmur described, or whether it belonged to the diastolic presystolic only. However, it occurs to me, that if the heart were beating slowly this undulatory character should be noticeable in all mitral direct murmurs produced in the manner I have described. This attribute would be an expression of the oscillatory movements of the arterial pressure.

I find in Dr. Flint's treatise[1] the only distinct recognition of the existence of this mitral functional stenosis with which I have met. The same mechanism is evidently referred to in the account of Case 112, in Hayden's treatise on the *Diseases of the Heart*. But it seems to me that its importance must have been overlooked, and I take it that it should be recognized as an important element of prognosis in cases of aortic insufficiency. I believe the murmur in question is frequently present in cases of the latter disease, and that it accounts to a great extent for the transmission downwards of aortic regurgitant murmurs. It is a soft murmur without marked individuality as to quality, and often does not appear as a distinct murmur, but becomes consonant with the aortic regurgitant, intensifies it, and makes it more clearly audible at the apex, and ensiform cartilage than it would be otherwise.

Dr. Balthazar Foster, it appears, has demonstrated that when the posterior or intercoronary leaflet of the aortic valve is defective, then the aortic regurgitant murmur is transmitted towards the apex, because the recoil current, in such cases, trends that way. But I believe the fact to be that in such cases the regurgitant murmur is more apt to press directly upon and close the mitral valve, thereby giving rise to the auricular systolic murmur, which, as I have said, contributes greatly to the extension downwards of aortic murmurs. Whatever the explanation, the point as to diagnosis seems to be well taken; but not so as to prognosis. For Dr. Foster further maintains, that in such cases the prognosis should be more favorable, because that leaflet is affected which is not concerned directly in aiding the coronary circulation. In other words, he argues that the cardiac nutrition is better kept up than when the right or left leaflet is affected; these latter being instrumental in directing the stream of blood into the corresponding coronaries. But I hold with Dr. C. Hilton Fagge,[2] that the prognosis is rather more unfavorable in cases in which the murmur is transmitted towards the apex; and one of the reasons it appears to me now, is that the functional mitral stenosis is apt to develop earlier in these cases; and this functional mitral obstruction is the first halt or backward step of the blood current, from the ventricular or arterial side to the auricular or venous side, the first step leading down the steep to venous stasis, asystole, and death.

Let us not say then with Fothergill: "The day of the prominence given to the presystolic murmur will ere long be over," but on the contrary let us be watchful and studious of its import as seen in this new light.

Let us not make light of dynamic murmurs. Walsh leads us astray when he states that they differ from organic murmurs, in that the latter are attended with

[1] A practical treatise on Diseases of the Heart, by Austin Flint, M.D., page 207, second edition. Consult also an article on Cardiac Murmurs, in The Amer. Jour. of Med. Sciences for June, 1862, by the same author.

[2] Article on diseases of the valves of the heart, in Reynolds's System of Medicine, vol. iv. page 645.

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other symptoms of cardiac disturbance, and alterations in size of the heart. This is incorrect. Many dynamic murmurs are accompanied with such concomitant alterations, due, it is true, to disease elsewhere in cardiac mechanism; but the murmurs are, nevertheless, indicative of conditions which aggravate the coexisting lesions.

Together with the auricular systolic murmur that I have been describing, we should have dilatation and hypertrophy of the left side of the heart, accentuation of the second pulmonary sound, and a feeble first sound. A complete absence of the first sound has been observed in some cases of aortic incompetency, in which the mitral valve was subsequently found healthy. These cases have been used as arguments against the valvular theory of the first sound. But if we consider that, under the circumstances in question, the ventricular systole finds the mitral valve already stretched by the arterial reflux, we can understand how their further closure at the moment of the systole may be noiseless, so far as the left ventricle is concerned: a feeble systole of the right ventricle will account for the absence of the tricuspid element.

It is easy also to conceive how this premature tension of the mitral valve may give rise to more than one form of reduplication of the heart sounds.

I have stated that this functional stenosis is a backward step; that it may be the first step towards cardiac impotency; but I must add that, like all other retrograde movements of the heart's cycle in disease, this one also comes under the following law of cardiac pathology, namely: That there is no step tending to cardiac impotency, which may not be at some time, or within certain limits, compensatory and salutary. The functional obstruction at the mitral valve, for instance, stands as a sentinel, keeping the amount of blood that comes from the auricle within the limits of the capacity of the over-distended ventricle.

Since writing the above report I have met with the following case of simple primary endocarditis. Such has been my diagnosis, and I present, without comments, the facts in the case. As a matter of interest concerning the etiology of these cases, I should mention that there has been an epidemic of mild scarlatina prevailing in this city since the end of July.

CASE III.—Joe R., 20 years of age, a sailor, born in Germany. His father is a robust sailor, but is occasionally troubled with stiff joints and subacute rheumatic pains. The mother died of acute pneumonia. He has six brothers and sisters, all healthy. He had the Asiatic cholera when one year old, and an attack of pleurisy at the age of eleven. This disease did not last over a week. To all other questions which may suggest themselves to the reader concerning the previous health of the patient, his invariable answer is that he has always been healthy. He is not subject to colds, and has rarely had epistaxis. He is temperate, and has never had any venereal disease. He is a well-developed, intelligent young German, with a florid complexion, and a slight excess of fat. He has good teeth, and large bones in the extremities. The chest shows some transverse constriction, with depression of lower portion of the sternum.

He has been employed for some time on steamboats and in stores about Jacksonville, Florida. About four weeks before taking sick he had returned from a short visit to Germany. About the first of this October he began to work in cleaning up the building of a German Club. His feet were wet nearly all day, and he slept in a damp basement room. He was taken sick on the 13th with severe headache. This persisted, and was accompanied with pain across the epigastrium, some nausea, loss of appetite, and slight aching of the limbs. He continued his work until the morning of the 16th, when he had a severe chill. After this he went out to get a dose of oil, which he took, and, on his return, went to bed with high fever.

October 17. Evening.—He was first seen by Dr. J. J. Edwards. The bowels were loose, the abdomen was tender, the tongue quite coated, the fever high, and suspicions of typhoid fever were entertained. Pulse 112; respirations 30; temp. 103.8° F.

18th. Morning.—I was asked to see the case with Dr. Edwards. I was struck, first, by the anxious expression, the slight icteric hue of the pale skin, and the excited action of the heart, which was observable over the shirt. The apex beat was found in the fifth interspace, just inside of the line of the nipple. The impulse was vigorous, sustained, slightly tremulous, and its area was wider than normal. There was a soft diastolic murmur, which was best heard about the middle of the sternum, and which was undoubtedly an aortic regurgitant murmur. The first sound was also murmurish, but this I attributed to the excited action of the heart.

The patient's mind was clear. His face flushed some as he spoke. He complained of no pain, except that across the upper segment of the abdomen. It was not a severe pain, but more a feeling of distress. The abdominal walls were sensitive, especially towards the iliac fossa. There was no pain in the limbs, no cough, no sore throat, no abnormal respiratory sounds. The skin was dry, and its papillæ were very prominent. He had vomited once. The stool passed in the morning was liquid, and light colored. The tongue was covered with a thick grayish coating; pulse 120, respirations 25, temp. 105.4°. He was sent to the Marine Ward in the City Hospital. I ordered him gtt. xv of tincture of the chloride of iron every two hours. In the evening his condition was the same, except that the temperature had commenced to fall. He was given gtt. xx of tincture of digitalis at seven o'clock P. M., and at midnight. The iron was continued, and orders given to substitute quinine for it if the temperature fell below 102°. Pulse 122, temp. 104.4°.

19th.—The temperature at two o'clock A. M. was 99.8°, and he was given gr. x of quinine at two, at three, and at four A. M. The temperature at four was 99.6°; at six it was 99°, and the pulse 86; at eight, pulse 86, respiration 15, temp. 99.2°. He has slept none; feels better; still complains of distress across the epigastrium. He had some headache. The face is somewhat flushed; the eyes are watery, and the lids puffy. With the heart beating 87, and the patient in the recumbent posture, the following physical signs are observed: The tremulous

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character of the impulse, which yesterday amounted almost to a thrill, is better described to-day as a lingering of the heart in its position against the chest-walls. The position of the apex is the same. The area of cardiac dulness commences at the fourth left rib, and is in other respects also normal. The second sound is quite feeble on both sides of the sternum, and is accompanied and followed by a soft murmur, which is better heard at the third left space than at the second right, and still better over the sternum in an oblique line between those two points. It loses in intensity when it is followed down the sternum, and is lost; but it seems to increase when followed towards the apex, where (and even before reaching it) the murmur changes completely in character, and becomes rougher and longer, filling up the whole of the period of silence, and showing a presystolic accentuation. The first period is quite loud, and free from murmur. The pulse is rather small, easily compressed, and rapidly collapsing—a pulse of aortic regurgitation, without hypertrophy. The urine contains no albumen. The iron to be continued. Evening: No change in his general condition. Pulse 86; temp. 100.5°.

20th.—Has taken this morning gr. v of quinine at six, seven, eight, and nine o'clock. The iron continued. Pulse 90; temp. 100.8°. The epigastric distress was much relieved after vomiting some greenish fluid this morning. The tongue is thickly coated in the back and centre. Near the edges there is a belt with a sharp outline of a much lighter coating. The face is less flushed. The pulse is larger and more jerking, but still receding. The icteric hue is very faint. The pulse of the carotids and subclavians is visible. Has had two liquid stools in the twenty-four hours. The two murmurs are to-day more easily separable, and I am convinced of the existence of the two lesions, aortic insufficiency and mitral stenosis. In the evening complains of headache and restlessness. Pulse 82; temp. 102°. He is ordered gtt. xx of tincture of digitalis at eight P. M. and at two A. M. Is to take also gr. x of quinine at four, six, and eight A. M. to-morrow.

21st.—The quinine has been taken, and the iron is continued. Pulse 86; temp. 101.4°. Very little sleep, but feels much better. The tongue is cleaner. The bowels have not been moved. The urine is decidedly acid, and of a light orange color. It has a specific gravity of 1.023. It contains no albumen, and presents nothing abnormal on microscopic examination. The cardiac area of impaired resonance commences at the third rib. The second sound is more pronounced at the left than the right border of the sternum. The murmur of the second sound is very soft, and is rapidly lost in all directions from the left half of the sternum, at the level of the third interspace. The presystolic murmur is becoming rougher. Evening: Pulse 70; temp. 100°.

22d.—Pulse 64; temp. 98.2°; xx gr. of quinine in the morning, and the iron continued every two hours. Evening: Pulse 62; temp. 98.2°.

23d.—Morning: Pulse 60; temp. 97.5°. Evening: Pulse 58; temp. 98°.

24th.—Morning: Pulse 50; temp. 97°. Evening: Pulse 56; temp. 97.5°.

For the use of the tincture of iron I have no better reason to give than this: I use it with success in cases of erysipelas and diphtheria; and I thought that, perhaps, it would tend to consolidate the coagula, and thereby prevent embolism. This suggestion I received some years ago from Dr. J. L. Ludlow, of Philadelphia, as appropriate to the treatment of embolism in general, rather than that treatment which aims at dissolving the coagula.

27th.—The favorable condition continues. The quinine has been discontinued. The treatment now consists of rest in the horizontal position, and iron three times a day. I shall watch the development of the cardiac hypertrophy.

CHARLESTON, October 27, 1885.

AN UNUSUAL CASE OF PHARYNGEAL FISTULA.

BY HOBART A. HARE, M.D.,
PHYSICIAN TO THE CHILDREN'S DISPENSARY OF THE UNIVERSITY HOSPITAL.

THROUGH the kindness of Dr. W. E. Hughes, I am able to report this case, which is a curious one for several reasons, which will become apparent when the following history is read.

CASE.—A. E., æt. 5 years. Boy. Came to the dispensary of the Children's Hospital with the history that he had fallen on his head from a chair about two years ago, and that this accident was soon followed by disease of the cervical vertebræ, which at present has resulted in fixation of the head to a great extent. Four months ago he was taken to the orthopædic dispensary of the University Hospital for this fixation, which seems to have caused the mother considerable alarm. Soon after this the mother noticed a slight puffiness on the right side of the neck near the sterno-mastoid muscle, and within a few days there was a sudden discharge of pus from the mouth. The swelling at the side of the neck increased in size, and finally opened of itself with a considerable escape of pus.

No sooner had the pus begun to stop than the mother noticed that a portion of the food which he swallowed frequently escaped through this opening in the neck. She states that this escape of food is not constant, but occurs only at varied intervals, and from a series of cross-questions it seems probable that the fistulous tract is at least partially closed on certain days by granulations, which at other times are destroyed by some motion of the head, thereby making the tract again patulous.

At the time that I examined the boy the mother stated that no food had escaped through the fistula for several days, and a drink of water taken at my direction passed safely down without any part of it appearing at the external opening. A rough examination of the larynx with the aid of an ordinary tongue-depressor, the only instrument I had at hand, revealed nothing, probably because the internal opening was too low down to be seen without instrumental aid. At my request, she promised to take the child to the dispensary for the diseases of the throat and nose at the University Hospital on the next day, in order that a thorough examination might be made. Unfortunately, the next day was stormy and she did not appear. I was also unfortunate enough to mis-

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lay her address, so that I am unable to give a more thorough description of this unique case.

Although many standard works on diseases of this portion of the body were consulted, the writer was unable to find any account of a similar condition to the one before us. Many of these works mentioned congenital and traumatic fistulous openings of the pharynx or œsophagus, while others mentioned the formation and subsequent rupture into the pharynx of abscesses associated with disease of the cervical vertebræ, but none of them had any record of pharyngeal or œsophageal fistula following cervical caries.

This case seems to the writer to be of interest for the following reasons:

First. Its origin from cervical disease, produced by a fall.

Second. The entire absence of any sign of congenital fistula, generally known as bronchial fistula.

Third. The almost simultaneous rupture of the abscess into the pharynx or œsophagus, and on the side of the neck.

Fourth. The unusual position of the external opening, viz., under the sterno-mastoid muscle, instead of near the thyroid cartilage, which is the common region for the external opening in these fistules.

Last, but not least, it is an interesting point that the pus should have escaped into the pharynx while the child was awake, since the presence of an abscess in that region was not thought of, and no precautions against suffocation during sleep were taken.

The position of the external opening, only about one and one-half inches below the angle of the jaw, seems to me to point to the abscess being post-pharyngeal, rather than post-œsophageal, since the food would hardly pass outwards and *upwards*, even if propelled by considerable movement of the muscles of the neck, which, in this case, is very unlikely owing to the fixation of the head on the trunk by the cervical disease. The opinion that the internal opening is pharyngeal gains strength when the fact is remembered that the escape of food is almost simultaneous with the act of digestion, which would be an impossible occurrence if any muscular movement was required to force the food upwards.

NOTE.—Since writing the above, Dr. Reeves informs me that the patient was eventually taken to him at the University as requested, and that a very thorough examination of the pharynx with the laryngoscope failed to discover any internal opening in that region. As *all* the former symptoms continue, and as the child is failing fast owing to septic poisoning, and the disorder of digestion consequent on swallowing large quantities of pus, the writer believes with Dr. Reeves that the internal opening must be in the œsophagus.

GANGRENE OF THE SCROTUM FOLLOWING EXCISION OF THE INGUINAL GLANDS; AN ACUTE REFLEX TROPHIC LESION.

BY W. B. PLATT, F.R.C.S. (ENG.),
OF BALTIMORE.

I WISH to call attention to the occurrence of localized gangrene of the scrotum after the excision or scraping out of enlarged inguinal glands, and to express my belief that when this takes place it is due to a definite lesion of trophic nerves.

Two cases of gangrene of the bottom of the scrotum following excision of the inguinal glands, have come under my immediate observation, and Dr. Tiffany kindly gives me notes of his own case in which this occurred, making three altogether.

CASE I.—While House Surgeon in the Boston City Hospital in September, 1879, an Irishman, æt. about 40, was admitted, suffering with chronically indurated inguinal glands in the left groin of two years' standing. They had never suppurated, and caused inconvenience only by their size and occasional pain felt in them. There was no evidence of secondary syphilis, and no history of a skin eruption. The patient said he had a sore (probably a chancroid) a short time previous to the glandular swelling. At the time of the operation he had, however, a small indurated lump on the preputial margin, as large as half a peanut-kernel. This had existed but a short time. The man was tremulous, suffering from chronic alcoholism. In the left inguinal region was felt a hard, oval, immovable mass, about two and a half inches in its long diameter. The skin was slightly reddened over it. The patient being etherized, Dr. Geo. Gay made an incision in the long axis of the swelling, parallel to Poupart's ligament, and removed two connected lumps the size of pigeon's eggs. On section these were seen to be gray, with numerous yellow foci, the size of canary seeds, scattered throughout their substance. The wound was brought together by sutures, a drainage-tube left in, and carbolic gauze dressings applied.

The entire operation was done under strict antiseptic precautions. Elastic webbing was applied over all to retain the dressings in place. The wound itself healed with little redness, swelling, or discharge.

The only noteworthy fact in this connection is that the bottom of the scrotum on the left side became swollen and red on the second day; on the third and fourth days an oval, sharply defined dark patch, one and a half to two inches long, was to be seen at this place. This eventually sloughed away with considerable discharge of pus, and the resulting gap healed rapidly by granulation. The erythema of the scrotum extended to the antiseptic dressings, but not under them.

CASE II.—Patient was a young white male, at Bayview Hospital, Baltimore. When I came on duty the patient had been operated on, two weeks previously, by my predecessor, who had scraped out his inguinal glands on the left side, and had slit up the meatus urethræ. Within a few days after the operation on the glands, the bottom of the scrotum became red, swollen, and tender. Two sharply defined dark patches appeared, one of which extended across the median line of the bottom of the scrotum. The sloughs were separated by a bridge of skin on the surface, although connected beneath. In removing them I withdrew a large part of *both* sloughs, by drawing upon one of them. The resulting gap healed well by granulation. In this case no attempt had been made to use antiseptics. The testicles were not exposed in either case.

CASE III.—Dr. Tiffany (to whom I mentioned my views last April) informs me that in the spring of

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1884 he spooned out the enlarged inguinal glands in the right groin of a young male patient at Bayview Hospital, Baltimore. Several days later the scrotum at its lower portion became thickened, red, and painful, a large patch of the swollen tissues, four inches in diameter, speedily presented the appearance of gangrene, which extended somewhat beyond the median line. The slough soon separated, and the wound healed by granulation.

The only elements these three cases have in common are, the operation upon the inguinal glands, and the resulting gangrene of the bottom of the scrotum, with the usual attendants upon the process of repair.

In supposing such a relation as that of cause and effect, between excision (or scraping out) of the inguinal glands and gangrene of the scrotum, we may consider.

1. Phlegmonous erysipelas.

2. Gravitation of septic fluids, or direct extension of inflammation from the groin to the scrotum.

3. Interference with the circulation, by obstructing the free flow of blood to or from the part.

4. An acute reflex gangrene from intense irritation of trophic nerves.

1. Phlegmonous erysipelas is a loose term frequently applied to several other diseases. Simple cellulitis has often been so denominated.

I especially noted at the time of the first operation, that the redness did not begin at the *wound* but at the scrotum, as the healing of the wound in the inguinal region was quite normal in every way. The erythema did not even extend beneath the gauze dressings. The gangrene could not be attributed to the carbolic spray, since that was not employed in the two other parallel cases. The snipping of the meatus probably had no connection with the gangrene, since that was done only in Case II.

If by erysipelas we may understand inflammation, gangrene, or sloughing, then we agree to the term; there was no erysipelas elsewhere in the wards in Case I., and no other patients were affected, although dressed with the same instruments, and by the same persons as in the case in question; there was not a scratch on the spot of the scrotum where the lesion began in every case. In the other two cases there may have been erysipelas somewhere in the wards, since it is far from uncommon at Bayview, although I do not know of any. But in none of these cases did the erythema begin at the wound, but at the bottom of the scrotum; if this was erysipelas, why did the *wound* escape? why did the penis escape? where was the vesication so often seen in erysipelas, but in none of these cases? why did the inflammation remain so generally restricted to one side of the scrotum instead of invading it all? Mr. Liston[1] is quoted by Holmes, in his *System of Surgery*, as saying that "erysipelas of the scrotum may follow sores or eruptions, situated in the groins, genitals, or inside of the thighs, or in cases of fistulæ." In the latter it might follow by extension from them. The first examples can, however, be explained upon the same anatomical grounds as can our cases, if were are willing to call erythema, or dermatitis what Mr. Liston calls erysipelas.

2. Gravitation of septic fluids from the groin into the scrotal tissues, or extension of inflammation from the wound to the scrotum. The first of these suppositions assumes that there are septic fluids generated in the wound. Of this there was no evidence in any case, or that having them that they could gravitate in this way, or that having gravitated they would cause gangrene.

The ordinary inflammation of lymphatics is not prone to travel away from, but rather toward the trunk. We know that in extravasation of urine the fluid rises upon the penis, or upon the abdomen, but the groins are not invaded by the urine under the superficial fascia. We also know that quite extensive inflammation may occur in the scrotum from injury or from various causes without a resulting gangrene, although this last does occur at times apparently without sufficient cause being apparent. Why, therefore, should an operation four inches away cause gangrene when no direct connection between the wound and the gangrene, for inflammation or septic products, has been proved.

3. The inconsistency of some eminent authors, as well as the force of tradition, is well shown by Humphrey (Cambridge, Eng.), who states:[1] "The tissues of this region have no great degree of vitality, the arterial branches to it are long and delicate, and . . . . are thus easily strangulated;" while a little further we read, "The remarkable power of repair which the scrotal tissues possess . . . . is well known." The first part of the first quotation is pure assumption, while the second quotation is a fact we all admit. As a matter of anatomy, the scrotum is abundantly supplied with both vessels and nerves. The fact that the tissues are loose is absolutely no reason why they should be especially subject to gangrene. That some other tissues are dense and firm, has been advanced with more reason as a cause of the quick necrosis they undergo from strangulation of their bloodvessels.

4. An acute reflex trophic lesion due to irritation of the branches of the ilio-inguinal nerve of the groin and reflected to the terminal filaments in the scrotal tissues. It is well known that local reflex alterations of nutrition do occur from irritation of peripheral nerves—certain skin eruptions, as herpes. Some cases of acne and pemphigus clearly have this origin. Reflex œdema has been frequently observed, clinically, as well as produced in the physiological laboratory. Cases of gangrene due to reflected nervous influence have been observed by Sir William Ferguson,[2] Gubler,[3] and Grainger Stewart,[4] according to Brown-Séquard, who also states[5] that he has often seen gangrene of the ear produced by a mere prick of the medulla. He proceeds to say, "those persons who know that even gangrene may be caused by an influence of the nervous system, as rendered so probable by Dr. Ray-

[1] Med.-Chirur. Transactions, vol. xxii. p. 228. Prac. Surgery, p. 450.

[1] Holmes's Syst. Surg., vol. iii. p. 585.
[2] Lancet, vol. xiii. p. 152, 1850.
[3] Comptes Rendus de l'Société pour Biologie, 1854, p. 76.
[4] Med. Press and Circular, Jan. 10, 1866.
[5] Holmes's Syst. Surg., vol. ii. p. 210 (Eng. Ed.).

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naud,[1] will not be reluctant to admit that it may be the result of a reflex influence from irritated nerves."

We know that the region of the groin and the scrotal[2] tissues is supplied by branches of the same nerve-trunk, viz., the ilio-inguinal, and that a motor reflex connection exists between the skin branches of the genito-crural nerve and the cremaster muscle. We have no good evidence that the gangrene of the scrotum is produced by the other known causes of gangrene. These two nerves are complementary to each other. Knowing that a reflex gangrene has been observed elsewhere, a reasoning by exclusion and by analogy will lead us to believe it quite probable that gangrene of the scrotum, following excision, etc., of inguinal glands, is an acute reflex trophic lesion.

MEDICAL PROGRESS.

A CASE OF SUDDEN PULMONARY CONGESTION RELIEVED BY ASPIRATION OF THE AORTA.—DR. J. DACRE, in *The Bristol Medico-Chirurgical Journal* for September, 1885, reports a case of sudden pulmonary congestion, in which aspiration of the aorta, accidentally performed, instead of aspiration of the right auricle, as intended, was followed by immediate relief.

The patient had been suddenly seized with dyspnœa, and when first seen was gasping for breath, each inspiration rattling the mucus collected in the throat and larynx, and which he was too feeble to expel.

All efforts made to relieve his condition being without effect, and he being now *in extremis*, it was determined to aspirate the right auricle. With this intention, a medium-sized needle and canula was inserted in the fourth intercostal space on the right side, close to the edge of the sternum, passed straight through the intercostal tissue until it was felt to be in the chest, and pushed in that direction for about an inch and a half. On removing the needle blood jetted out of the canula, and in about five minutes thirty ounces of blood were withdrawn.

The needle was then removed, and no hemorrhage occurring through the puncture, it was at once sealed with collodion.

The condition of the patient at once improved, consciousness returned, he breathed more readily, and was able to speak.

The improvement was, however, only temporary, and the operation was again performed for the patient's relief, this time unsuccessfully, death occurring in about forty minutes.

Post-mortem examination showed that the aspirating needle had passed immediately above the right auricular appendix and had pierced the anterior surface of the aorta about one-quarter of an inch above one of the semilunar valves.

In reference to the best locality for puncture of the auricle, Dr. Dacre thinks the fourth interspace close to the sternum preferable, as in this position by experiments on the dead body, he has found that a needle passed directly backwards, almost invariably pierces the auricle.

[1] De l'Asphyxie Locale ou Gangrene Symétrique des Extrémités, Paris, 1862.

[2] The scrotum is supplied by the two external pudics, the superficial perineal and the cremasteric arteries, and by branches of the ilio-inguinal, pudic, and inferior pudendal nerves.

THE TREATMENT OF CHRONIC BLEPHARITIS.—PANAS recommends the following preparation in the treatment of chronic blepharitis:

℞.—Hydrargyri binoxidi. . . .	gr. ½.
Vaseline	℥ijss.
Liquor plumbi subacetatis . .	gtt. v.
Ft. unguent.	

S. Apply to the eyelids morning and evening, and during the day bathe the parts frequently with an aromatic astringent.—*L'Union Médicale*, October 17, 1885.

UTERUS DIDELPHYS OR DUPLEX (?), WITH A DOUBLE VAGINA.—LITSCHKUS, *Vratsch*, 1885, No. 26, reports the case of a woman, aged twenty-nine, who first menstruated at the age of eighteen; sometimes at intervals of two or three weeks, at others, after periods of a week. Some years previous to her coming under observation she had aborted.

Examination showed the external genitals to be normal. The vagina was divided by a partition wall into a right and a left space, the right being the larger, communication between which existed at the *os uteri* by a perforation in the partition. The right-sided portion of the vagina was free, while the left, besides being shorter, was adherent above and behind, so that only with difficulty could a speculum be introduced into it.

Both vaginal divisions could be recognized by rectal examination, and also through the abdominal wall; the furrow between the two horns of the uterus could be recognized. The sound, both on the right and the left side, entered the uterus to a depth of three and four-fifths inches. The menstrual flux appeared to escape from the right side only, the os uteri of which was smoother and softer than that of the left organ, which probably was without function.

Dr. Litschkus remarks on the rarity of the cases in which diagnosis of the condition is made during life, and refers to diversity of opinion in a case reported previously by Kubasov, as to whether the condition was that of uterus didelphys, or uterus duplex.—*Centralblatt für Gynakologie*, October 17, 1885

INDICATIONS FOR CHOLECYSTOTOMY.—DR. AUGUSTUS C. BERNAYS, after a discussion of cholecystotomy, appends the following conclusions in reference to the indications under which the operation should be performed.

1. The causes which indicate an operative interference with the system of gall vessels are: *a*, jaundice; *b*, paroxysmal pain or a tumor in the right hypochondriac region; *c*, suppuration; *d*, peritonitis; these conditions to be either severally or singly recognizable, the presumable origin being biliary calculi; *e*, malignant disease.

2. Explorative laparotomy must be preferred to acupuncture or aspiration as a diagnostic measure.

3. The incision in the linea alba is preferable when there is much doubt regarding the seat of obstruction, because the large ducts can be reached much better from this incision than from the incision parallel to the free border of the ribs.

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4. The escape of bile through an abdominal fistula is not injurious to the process of normal digestion. The bile is an excretion, and probably of no more use in the intestinal canal than the urine in the bladder.

5. Jaundice, when caused by an obstruction of the common duct is no contraindication to natural cholecystotomy. We may often save life by its early performance.

6. Cholecystotomy, natural and ideal, and cholecystectomy are the three operations at our service; cholecystenterostomy may be useful, but it has not yet earned a place among approved surgical procedures.

7. Ideal cholecystotomy is indicated when the bladder is normal in structure and when the gall-ducts have been cleared of obstructing calculi.

8. Natural cholecystotomy is indicated when the bladder is ulcerated or suppurating, or when there are permanent obstructions beyond reach at the time of operation.

9. Cholecystectomy should be limited to cases of otherwise incurable or malignant disease of the gall-bladder.—*The Weekly Medical Review*, Oct. 31, 1885.

A CASE OF RIGHT-SIDED CHYLOTHORAX DUE TO TEARING OF THE THORACIC DUCT.—DR. KRABBEL reports the case of a youth, 16 years of age, in whom rupture of the thoracic duct was caused by his being run over by a wagon, and was followed by chylothorax. The patient was first seen by Dr. Krabbel the morning after the accident, and appeared not seriously injured, breathing without difficulty, and complaining only of pain in the region of the sternum, and on both sides of the thorax. The external wounds were extremely insignificant, and no ribs were broken; no emphysema. The patient, though with difficulty, was able to raise himself in bed.

Percussion on the right side revealed nothing abnormal, while on the left a dull zone two inches wide existed below the scapula, and in this region the vesicular murmur was absent. Temperature 97.3° F. Respiration 76. Diagnosis was made of contusion of the thorax, and right-sided hæmothorax, due to wounding of a vessel.

The condition of the patient remained favorable, with but little variation in his symptoms, until September 3d, when, though not so well, the patient, contrary to orders, left his bed to go to stool. The nights of September 4th and 5th the symptoms became urgent, and the patient suffered from thirst and coldness of the extremities, and breathing was difficult.

Examination, made the following morning, showed percussion dulness over the entire left lung, absence of respiratory murmur, and pectoral fremitus. The percussion râle in the right half of the thorax, before as well as behind, was plainly tympanitic. The symptoms gradually increasing in severity, the patient died, apparently of suffocation.

Post-mortem examination showed all the thoracic organs to be normal, but, strange to say, the ninth thoracic vertebra was found fractured diagonally, and in this location the thoracic duct was also cut through, but little difficulty being experienced in introducing a sound into the upper and lower fragments. The œsophagus, aorta, and vena azygos were entirely normal. The most singular fact of all is, that neither the dura mater nor the spinal cord itself presented the least sign of injury, neither had there been any symptoms of paralysis manifested.—*Centralblatt für Chirurgie*, October 17, 1885.

PHYSIOLOGICAL AND THERAPEUTIC EFFECTS OF PYRIDINE IN ASTHMA AND CARDIAC DISEASE.—M. GERMAIN SÉE, in a discussion of the therapeusis of asthma, gives the following review of the general effects of pyridine—reference to which has already been made in these columns.

The best method of administration is to pour sixty or seventy-five grains of pyridine in a saucer, placed in a small chamber containing about twenty-five cubic metres, the patient being seated in a corner of the room, and thus breathing air mingled with the vapor of the drug. The *séance* should last about twenty minutes, and be repeated three times daily. The absorption is immediate, the pyridine appearing almost at once in the urine.

a. The oppression diminishes considerably, respiration becomes free, desire for air less imperious, while the heart becomes calm and regular, and the pulse preserves its rhythm and force.

b. Toward the close or after the *séance* patients experience an irresistible tendency to sleep.

During slumber, there is a marked diminution of the reflexes with conservation of contractile power; which, however, is diminished. Neither paralysis nor convulsions are produced, neither is there evidence of tremor.

c. The action of pyridine should not be compared with that of chloroform or ether. It possesses the special property of diminishing bulbar and medullary reflex excitability; and in this connection it is remarkable that such effect is not found in like degree in nicotine and atropine, both of which contain pyridine.

d. The effect of pyridine upon respiration continues for some time, and the tendency to nocturnal oppression disappears as the result of inhalations practised during the day. Patients sleep well and desire the inhalations.

e. After two or three *séances* expectoration becomes more abundant and fluid, and loses its purulent and fetid character. Mucous râles alone are heard, and these finally disappear and respiration almost regains its normal sounds. The use of the drug is attended with no inconveniences, save perhaps a slight tendency to nausea and vertigo. In some cases attacks of suffocation disappear completely; in others the effect of the drug diminishes after eight or ten days, and it then becomes necessary to combine it with the iodides.—*Bulletin Général de Therapeutique*, October 15, 1885.

DISLOCATION OF BOTH HUMERI.—GÜTERBOCK (*Berliner klin. Wochenschrift*, No. 22, 1885) reports a case of double dislocation of the humerus, which, by reason of its rarity, is of extreme interest.

The patient, an old woman, aged 86, by a fall from bed dislocated both humeri, the head of the left being more internal to the coracoid process than that of the right, which, however, was replaced with more difficulty and only after anæsthesia.

Four weeks after the accident the patient died, and post-mortem examination showed complete cicatrization of the tear in the articular capsule on each side, the only signs of the injury being a reddish cicatrix and a thickening at the seat of the injury.—*Centralblatt für Chirurgie*, October 17, 1885.

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LEPROSY: ITS NON-CONTAGIOUSNESS.—The following summary of the views of physicians in Japan—as ascertained by PROF. VIRCHOW—in relation to the contagion of leprosy, is of much interest.

1. The hereditary tendency of the disease should be considered as proven; sometimes a generation escapes.

2. Infection does not occur either by marriage or by sexual intercourse.

3. No instance of a well-established case of direct contagion is known.

4. In Japan, there are no leper communities, no hospitals, further than hygienic proscriptions or ordinances relating to lepers.—*Gazette Hebdomadaire*, Oct. 16, 1885.

EPILEPSY AND HEMICRANIA.—B. SILVA (*Giornale di Neuropatologia*, Fasc. 1 and 2, 1885), in discussing the relations of epilepsy and hemicrania, while recognizing the frequency of heredity in both, calls attention to the following points of difference between the two diseases:

1. While hemicrania in the great majority of cases begins about the period of puberty, epilepsy most frequently begins at the end of childhood.

2. The attacks of hemicrania become less frequent and less intense with advancing age, and in old age often cease entirely—while, on the contrary, epileptics commonly terminate life insane.

3. That occasional causes—menstruation, mental excitement, etc., exert a greater influence in the production of hemicrania than of epilepsy. Silva's views agree essentially with those of Wagner and Struempell, who are among those who deny the essential relation between the two diseases, for the reason that the attacks in the two diseases are not similar.—*Rivista Internazionale di Medicina e Chirurgia*, September, 1885.

THE USE OF IODOL IN SURGICAL OPERATIONS.—DR. GÆTANO MAZZONI calls attention to a new chemical preparation, called Iodol. The substance is a powder of a yellow or grayish-brown color, nearly odorless and perfectly tasteless, and has an action very similar to that of iodoform.

The observations made upon its effects already exceed two hundred, and the results have been extremely favorable.

The remedy may be used in powder, suspended in glycerine as an ointment, or in dilute solution of alcohol and glycerine, the substance being entirely insoluble in water.

In venereal disease its effects have been excellent, as also in periadenitis.

In abscesses, in which necrobiosis is extensive, the beneficial effect of iodol is manifested in the disappearance of all odor and the rapid disappearance of swelling and accompanying healthy granulations.

In indolent ulcers a similar beneficial influence was noted.

On the other hand, the remedy is found useless and indeed harmful in gangrene.

Further, it is found to possess the power in a high degree of promoting healthy granulations, as is shown by its use in various forms of lupus and in chronic fungoid inflammation of the joints. The chemical formula of the preparation is not announced in the article calling attention to its merits.—*Berliner klin. Wochenschrift.* October 26, 1885.

SPINAL TUMORS IN CHILDREN.—At the recent meeting of the German Society of Scientists and Physicians, held at Strassburg, HERR KOHTS reported four cases in which tumors of the spinal cord had occurred in children under his observation.

The first case was that of a boy fifteen years old, who for a long time suffered severe pain in the right arm, together with loss of sensibility (and strength) in the member, finally progressing to complete paraplegia and terminating in death.

Post-mortem examination revealed the presence of a very soft sarcoma in the cervical portion of the spinal cord.

The second case was that of a little girl one and a half years of age, of extremely tuberculous parents, who developed in the course of a basilar tubercular meningitis a special sensibility of the vertebræ and a monoplegic paralysis of the left lower extremity. Post-mortem examination in this case showed the presence of tubercle in the thoracic portion of the cord.

In the third case an attack of intermittent fever supervened upon scarlatina. No paralysis occurred, but death followed, with symptoms of meningitis, and tubercle was found in the lower thoracic portion of the cord.

In the fourth case was manifested paralysis of the lower extremities, together with greatly exaggerated reflex excitability, and fistulæ were established proceeding from the vertebræ.

Autopsy showed the presence of caseous foci in the spinal cord.—*Berliner klin. Wochenschrift*, October 26, 1885.

INJURIES OF THE MAIN BLOODVESSELS IN THE AXILLA CAUSED BY EFFORTS TO REDUCE DISLOCATIONS OF THE SHOULDER.—DR. LEWIS A. STIMSON, in a discussion of the injury of the axillar vessels in efforts to reduce dislocation, says: An important question arises in connection with the treatment of dislocation of the shoulder: How far does the possibility of the occurrence of this accident affect the choice of a method of reduction? and also concerning the propriety of attempting reduction in cases that are not recent.

In the reduction of recent dislocations, these accidents show that abduction of the arm especially should be avoided, as also circumduction, violent traction, and rough pressure in the axilla. Kocher's method by manipulation appears well adapted to avoid the danger. It is also to be remembered that the injury to the vessel may be caused by the dislocation itself, and its symptoms may be masked by the swelling commonly present during the first few days.

In old dislocations the probability of the occurrence of the accident is increased by the more forcible measures usually necessary to break up the adhesions that bind the bones in their new relations; and, while it may be proper in many cases to make the attempt to restore the limb to usefulness, this possibility creates another reason for abstention when the patient is old, the duration of the dislocation long, and the adhesion firm. Even a dislocated arm may be very useful, and the fatality of this accident—more than 70 per cent. of deaths, may well cause the surgeon to hesitate to incur the risk merely for the sake of ameliorating a condition which does not endanger life and is quite compatible with activity and usefulness.—*Annals of Surgery*, Nov. 1885.

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COMPRESSION OF THE BRAIN.

MORE than a hundred years ago Saucerotte, while studying the theory of *contre-coup*, was so much impressed with the idea that the brain must be incompressible, as to announce, as one of the modes of fracture by counter-stroke, that a blow on one side of the head might drive forward against its opposite side a column of brain-mass, which would act like a solid body. On the other hand, Adamkiewicz has recently asserted that the brain is compressible, his opinion resting upon the observation that the introduction of a laminaria tent within the skull causes depressions on the surface of the brain. This view, however, is diametrically opposed to the commonly accepted theory in regard to the *rationale* of the symptoms of compression of the brain; and its publication has given rise to a recent paper by VON BERGMANN, in the *Archiv f. klin. Chir.*, Bd. xxxii. Heft 3, in which he comes to the rescue of the theory which he had before advocated in his work on injuries of the head. This theory, it will be remembered, refers the symptoms of compression of the brain to irritation and paralysis of the centres for the pneumogastric and vaso-motor nerves, due to anæmia, caused by pressure upon the capillaries, transmitted from a distant part of the cranium.

This theory rests upon the fact that the brain is incompressible, and that pressure upon any part of it will be conveyed through it. so that its effects will extend to every part, while the predominance of the symptoms of irritation in the centres of the vagus and vaso-motor nerves depends solely upon their relative sensitiveness. The practical importance of the theory is indicated by the fact that WIESMANN, in a paper published in the *Deutsche Zeitscrift f. Chir.*, 1884, Bd. xxi., has collected twenty-two cases, in which reliance upon it has led to trephining, to the removal of a clot, and, in twenty of the cases, to recovery of the patient. In view of these statistics, it is no wonder that Bergmann reiterates the correctness of his theory, and expresses great surprise that Adamkiewicz should have mistaken the phenomenon of mere displacement of the fluid contained in the brain for an evidence of its compressibility. Nor can we see how he could have confounded the effect of the enlargement of a laminaria tent by a slow imbibition of fluid drawn from the succulent tissues nearest to it with that produced by blood escaping rapidly from the vessels, and driven on by the muscular force of the heart and arteries. The fact is, that the juices of the brain may, with tolerable ease, be drawn out, or driven out, of it; but the brain is not compressible in the true sense of this term. It may not be quite so incompressible as Bergmann thinks, who says it must stand between water, which is compressible only forty-six parts in a million, and glass, which is compressible only one part in a million. But that it is incompressible, except by a slow process of displacement of its fluid parts, and acts like an incompressible fluid under certain circumstances, is shown by recent experiments in Germany, in which the skull has been burst by the sudden rise of intracranial hydrostatic pressure, caused by the impact of a projectile travelling with great velocity.

And here we touch the keynote of von Bergmann's article. It is, that increase of intracranial pressure will cause anæmia of the brain, by compressing the capillaries, a very slight reduction in the size of which results in cutting off a large proportion of the blood-current. In 1880 Bergmann directed a series of experiments by Bastgen, in which an artificial anæmia was produced by injecting an emulsion of oil into the distal end of the carotid artery. The effect was typical, as shown, first, by slowing of the pulse, due to irritation of the vagi, and by increase of the blood-pressure, due to irritation of the vasomotor centre; and, secondly, by a reversal of these conditions, due to the succeeding paralysis of both of these centres.

Von Bergmann's interpretation of these experiments seems to be confirmed by the investigations of Naunyn and Schreiber, who found that symptoms of compression of the brain are produced by less elevation of the intracranial pressure, if the blood-current has been previously diminished by compression of the carotid arteries; while it requires a much greater elevation of the intracranial pressure to produce similiar symptoms if the blood pressure in the cranium has been increased by compression of the abdominal aorta. Usually the pressure in the subarachnoid

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space in the spinal cord and brain is nearly the same as that in the capillaries, as has been demonstrated by the experiments of Landerer, and confirmed by those of von Bergmann. This, and the effect of raising the intracranial pressure, the latter surgeon has recently exhibited in a child fifteen months old, from whom he removed a meningocele larger than a man's fist. In this case he produced restlessness, cries, turning up of the eyeballs, drowsiness, and Cheyne-Stokes respiration by pressure upon the tumor. It seems clear that the pressure upon the tumor increased the intracranial pressure, from the fact that pressure upon the open fontanelle raised the pressure in the tumor itself. All this furnishes strong support to the theory of compression of the brain which we have stated above.

This theory receives further confirmation from the results of certain experiments of von Schultén, made in studying the same subject, from the standpoint of the changes in the bloodvessels of the fundus of the eye. These experiments are described, and the author's deductions from them are given in a series of valuable articles published in Langenbeck's *Archiv* of this year, the last of which has not yet appeared. We regret that we have not space to more than allude to them, and to the interesting observation which they confirm, that an increase of intracranial pressure is accompanied by an increase of pressure within the sheath of the optic nerve. The result of this is a diminution in the calibre of the arteries of the retina, and an engorgement of the veins, as evinced by the choked disk. An interesting case in which this phenomenon has been observed is now in a hospital in this city. The patient is believed to have an effusion of blood within the skull, due to a fall or blow, and his eye ground shows the very phenomena which von Schultén describes. A systematic examination of the fundus of the eye in cases of injury of the head would furnish, we believe, a valuable complement to the experimental researches which we have mentioned. This is a matter which we would commend to the attention of surgeons who see a large number of such injuries.

PASTEUR ON HYDROPHOBIA.

SINCE the Copenhagen Congress, we have not heard any confirmatory evidence for the statements then made by PASTEUR that he had discovered a cure for hydrophobia, but at a recent meeting of the Paris Academy of Medicine a further, and most important communication was made by him, which, if substantiated, will prove one of the most valuable discoveries of the century. On this occasion he announced that he had, by a series of successful inoculations, cured a case of human rabies.

Briefly stated, the facts are these: He had previously, by vaccinations, rendered dogs insusceptible to the poison, and obtained the modified virus in the following way: A rabbit was inoculated with a portion of the tissue of the spinal cord of a rabid dog, and became affected in about fifteen days. When it was dead, a second rabbit was inoculated with a bit of its cord, and the procedure was followed through a series of sixty animals. With successive cultivations in the rabbits, the virus gets more and more intense, and finally the period of incubation in an animal inoculated is not more than seven days. By keeping portions of the spinal cords in perfectly dry tubes, the virus gradually diminishes in intensity; and the longer it is kept, the more attenuated does it become.

Having thus obtained a proper supply, a suitable subject was forthcoming in an Alsatian lad who, in the beginning of July, was severely bitten in many places by a dog which was undoubtedly rabid. Sixty hours after the bites the first vaccinations were made with very attenuated virus, and were repeated twice a day for a fortnight with virus of successively increasing strength, the last injection being from a rabbit which had died the day before, and in which the poison was intensely virulent. The previous inoculations with weakened virus had rendered him insusceptible to the strongest poison which would render rabid in a short time an unprotected dog or rabbit. One hundred days had elapsed since the last vaccination, and the young man remained well. A second case is undergoing similar treatment.

The strong point in this remarkable record is the fact that dogs subjected to similar inoculations are insusceptible, and do not take the disease even when injected with the strongest virus. The weak point is the short space of time which has intervened since the bites and since the last vacination with strong virus. It is well known that the period of inoculation of rabies may be many months, or even three or four years, though the average period is within one hundred days. Time alone will tell whether the two patients are actually protected. They have been doubly exposed to infection through the original bite and by the intense virus of the final vaccination; but we may reasonably hope that in them, as in the dogs, an immunity has been secured.

The nature of the virus has not yet been determined, but Pasteur supposes it to be a microbe, and the nervous system appears to be the chief seat of its development.

THE MIDWIFE IN PLATO.

IT has been suggested that the Egyptian Isis, the Greek Diana, or Artemis, and the Roman Lucina were simply celebrated midwives, who were given celestial honors because of their kind and successful

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care of women in childbirth. Is reverence gone from among men that any should thus ruthlessly destroy myths once consecrated by common belief? Then, too, what sacrifice of poetic beauty is made when these fables are cast in the dust! Think, for example, of the beautiful Diana, the chaste virgin, who transformed Daphne into a laurel to save her from cruel pursuit, who caused Actæon to be devoured by his own dogs because he had seen her bathing, the beneficent being who clothed the meadows with verdure and flowers, and made the fields laugh with bounteous harvests, and who was honored with festal song and solemn sacrifice, especially by virgins and children, having once been, as was Phanærete, the mother of Socrates, "a big, burly midwife!" Nevertheless, many an old faith is cast aside with the progress of the race as a useless encumbrance, a sort of *impedimentum* as the Romans would call it, or as a garment that the wearer has outgrown. Time is as merciless to myths as avarice was to mummies. Of the latter, Sir Thomas Browne thus spoke more than two centuries ago: "The Egyptian mummies, which Cambyses or time hath spared, avarice now consumeth. Mummy is become merchandise, Mizraim cures wounds, and Pharaoh is sold for balsams."

But if the goddesses whom a past age adored are to be dragged from their thrones, and proved to be of common clay, at least there will always remain the opportunity of studying the characteristics of the midwives of old times from whose ranks these divinities, as it is alleged, came.

Probably we have in the Theætetus of Plato one of the best of ancient descriptions of the qualifications and duties of the midwife, and possibly a brief reference to that description may not be uninteresting. "No woman," says Socrates, he being represented as one of the speakers in the dialogue, "as you are probably aware, who is still able to conceive and bear, attends other women, but only those who are past bearing." The reason given for this restriction is, that "human nature cannot know the mystery of an art without experience." This rule, it is quite plain, not only excludes the young, but also the sterile. Similarly, Dionis, writing in the early part of the last century, states that the sage-femme must be married, saying that it would be bad for an unmarried woman to undertake an accouchement when "she was ignorant of all the circumstances necessary *pour faire un enfant.*" Obviously, too, the rule forever excludes male practitioners of midwifery, until the wishes that are occasionally expressed in the lying-in room, often jocularly, sometimes half seriously, to the effect that childbearing should be equally divided between the sexes, are realized.

Readers of George Eliot will remember that she has one of her characters assert that childbearing is done by women in "a poor, miserable, makeshift sort of a way," and that it would have been better if they had left it to the men. But to this judgment of a mysogenist Scotch bachelor, few men would joyfully respond amen.

Socrates next refers to the diagnosis of pregnancy, stating that midwives know better than others who are pregnant. Then their power, by means of potions and incantations, to rouse the pangs of labor and to soothe them at will, is referred to.

Socrates says that "midwives know best what unions are likely to produce a brave brood; if you reflect, you will see that the same art which cultivates and gathers in the fruits of the earth, will be most likely to know in what soils the several plants or seeds should be deposited." He further states that the "true midwife is, also, the true and only matchmaker." It seems that the familiar observation, probably made oftener at the beginning than at the close of married life, matches are made in heaven, is an error, or, as Byron would say, it is truth in masquerade, and that the potent agents in this work are midwives. We sometimes fear that the work of midwives in this regard is often badly done, or else domestic discord would be less frequent, and divorce courts have more rest.

The most important of the qualifications which Plato believed the midwife should have was experience. The same rule is urged in his "Republic" as to physicians: "Now skilful physicians are those who, from their youth upwards, have combined with the knowledge of their art the greatest experience of disease; they had better not be robust in health, and should have had all manner of diseases in their own person." Be merciful, O wisest of all Greeks! Life is too short for any one mortal to endure the hundreds of diseases to which flesh is heir. Life is too weak to bear such a burden. Let midwives continue to make matches, though the conflagrations that some of the latter kindle are most serious, but do not demand of the physician that he should have had all manner of diseases before he attempts to heal the maladies of others.

JAPANESE RAGS IN THE CITY OF PHILADELPHIA.

ON or about the 14th of October last, a cargo of Japanese rags, on board the ship "Lucy A. Nickles," was refused admission to the port of New York by the Health Officer, unless the rags were disinfected by a process approved by him. The consignees claimed that this processs is expensive, as well as destructive to the rags, and they refused to comply with the conditions.

The process referred to consists in submitting the

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bales to disinfection by superheated steam applied by means of hollow screws or augurs (perforated with numerous holes) penetrating the bales, through which the steam is forced, and escapes only after permeating every part of the bale. The charges are said to be about five dollars per bale.

As entry was refused at New York, the rags (some 4910 bales) were transferred to schooners, and a portion brought to the port of Philadelphia, where entrance was sought, and the remainder is to follow in a few days. Timely notification of the above facts was given to the Board of Health of Philadelphia, before the arrival of the first schooner-load, and the matter was brought up for consideration at its meeting on the 27th of October. After a prolonged discussion, the whole subject was referred to the Lazaretto Committee, to report at the next meeting. On the following Tuesday, November 3d, the Committee, or a majority of it, reported against admitting the rags unless first disinfected. This report the Board sustained, after due deliberation and much discussion; but two days later, a special meeting of the Board was called, and a resolution was then adopted, by a vote of eight to three, allowing the rags to be landed and stored within the city limits, and without previous disinfection of any kind. In lieu of disinfection a bond was required of the consignees, in the sum of $5000, not to remove the rags from the warehouse without previous notification to the Board, and within the next ten days it is expected that the remainder of the cargo will be landed in this city.

Now, these rags purport to have come from Hiogo, Japan, but in what province of Japan they were gathered, and when, is an open question; and it is well known that cholera has existed in Japan for the past twelve months, and that smallpox is always there —indeed, during the first six months of the present year nearly 5000 cases and over 1000 deaths have been reported. With the knowledge of these facts before them, as well as the sad experience of a few years ago in this city, to say nothing of the knowledge of the results of the fearful scourge now prostrating Montreal, it is criminally imprudent to admit into the country foreign rags from an infected locality without previous disinfection. It is, moreover, a very dangerous precedent, and at once invites rag merchants everywhere to a haven they have long sought.

If rags from one country well known to be infected with two of the most dangerous diseases that assume an epidemic form, can obtain admission to Philadelphia without undergoing disinfection, there is no reason why they should not be admitted from any country, regardless of its sanitary condition. We wish here to enter our most emphatic protest against this utter disregard of the dictates of common prudence and this rash endangerment of the lives of our citizens.

DEATH OF DR. WILLIAM B. CARPENTER.

NOWHERE is it so dangerous as in England for a medical man to acquire a reputation in any department of literature or science that does not bear directly upon tongues and pulses, and yet in no country has the medical profession so many scientific workers of the first rank. From the time of John Hunter, the reputation of the British school of biologists and comparative anatomists has rested largely upon the labors of physicians and surgeons in these departments, and a glance through the files of proceedings of the scientific societies will show what a prominent part they continue to take in the work. The members of the profession who have influenced their generation most widely in this direction in England are Professor Owen, Professor Huxley, and Dr. Carpenter. All three began life as practitioners, but soon relinquished the cares of practice for more congenial pursuits, retaining at the same time very close connections with the profession—Owen as Conservator of the Hunterian Museum, Carpenter as author of the largest and, for years, the best text-book on physiology, and Huxley as author of several works extensively used by medical students.

Dr. Carpenter was very widely known in this country through his *Human Physiology*, which was a favorite text-book for many years, and passed through eight editions. His works on *Comparative Physiology*, and on the *Microscope*, were also republished, and had large sales. As the successor of Forbes in the editorship of the *British and Foreign Medico-Chirurgical Review*, and as Professor of Medical Jurisprudence at University College, he retained very intimate relations with the profession for many years after his removal from Bristol to London, in 1844.

Dr. Carpenter's reputation as a physiologist rested chiefly on his text-books, and he had experienced in this department a foretaste of that oblivion which certainly awaits the author of such works. He will be long remembered by his later investigations upon human automatism, and the work on *Mental Physiology* will outlive many of his other better known books. But his permanent scientific position depends upon the careful researches which he made upon the Foraminifera and other low forms of life, and his investigations in connection with the deep sea dredging expeditions. Throughout a long professional career of fifty years, he was always to be found on the side of progress and humanity, and the profession and the race have been made better by his life.

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SOCIETY PROCEEDINGS.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, November 5, 1885.

THE PRESIDENT, A. JACOBI, M.D., IN THE CHAIR.

REPORT OF THE SECTION IN OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

DR. A. S. HUNTER, Chairman, reported that at the last stated meeting of the Section, held October 22, Dr. Howard Pinckney presented a *Hydrocephalic Head of a Colt*, the face of which bore a remarkable resemblance to that of a bull-dog. On account of the large head the dam died in labor; though Dr. Pinckney thought her life might have been saved if craniotomy had been performed. During her pregnancy a large bull-dog was in the stable where the mare was kept.

Dr. Malcolm McLean afterwards read a paper on the *Management of Unfavorable Cephalic Presentations at the Superior Strait*, especially the occipito-posterior positions. In posterior positions of the vertex, when the head cannot be satisfactorily rotated anteriorly by the hand of the accoucheur, or where it will not remain in the anterior position, he advocated podalic version, accomplished by the combined method, in preference to the use of the forceps, the method usually adopted.

DR. D. B. ST. JOHN ROOSA read a

SKETCH OF THE LIFE OF JAMES LAWRENCE LITTLE, M.D., AND OF THE TWENTY-FIVE YEARS IN WHICH HE PRACTISED SURGERY IN NEW YORK.

In April, 1860, Dr. Little began his duties at the New York Hospital as a junior walker, and in April, 1885, he died; so that it may be truly said that a quarter of a century bounded his professional career. In the hospital, Dr. Roosa said, he gave promise of his future career. He was assiduous and faithful as an assistant, and suggestive and enthusiastic as a house surgeon. It was while in the hospital that he devised his method of making and applying plaster-of-Paris splints, and he thought it is not too much to say that chiefly, if not entirely, through Little's efforts plaster-of-Paris splints became a practical application. His best qualities as a surgeon, a teacher, and an executive officer, were seen after his appointment to the Chair of Surgery in the University of Vermont, in 1875. In Burlington, as in New York, "Little's bench" became proverbial, for his operations were preëminently successful.

In reference to his surgical ability, Dr. Roosa said: "Of Dr. Little's surgical achievements in detail, I am not competent to speak, nor is it necessary that I should do so. They are indelibly recorded in surgical literature—at least in part, for of late years Dr. Little was somewhat regardless, from lack of time, perhaps, from his large and exacting public and private practice, to write as much as his friends might have wished. But I may say that he was the first American surgeon to puncture the bladder with the aspirator for the relief of retention of urine. He simultaneously ligated the subclavian and carotid arteries of the right side for aneurism of the first part of the subclavian. The operation for stone by various methods he had performed seventy-seven times, with a fatal result in but two cases; in hare-lip and strangulated hernia he also had a large and successful experience."

DR. PAUL F. MUNDÉ read a paper on

ELECTRICITY AS A THERAPEUTIC AGENT IN GYNECOLOGY.

Before commencing it he announced that, in consequence of the shortness of the time at his disposal, he would necessarily be obliged to omit certain portions of it. After a brief reference to the literature of the subject, he spoke of the obstacles which stand in the way of the adoption of electricity in general obstetric practice, and went on to say that these do not apply to that of gynecology, in which the patient is usually seen by the physician at his office, where she can be treated deliberately, and where the necessary appliances can always be kept ready for use. No special precautions are required in the application of this agent, and, indeed, the patient is often entirely relieved by it of the pain from which she was suffering when she came to the consulting-room.

The range of its applicability is quite large. The faradic current is especially indicated in malnutrition of the sexual organs, amenorrhœa, irregular menstruation, subinvolution, etc., and the galvanic in such troubles as pelvic neuralgia, fibroids, hyperplasia uteri, etc. The use of the galvanocautery was not considered within the scope of the paper, as in this the heat produced is the essential therapeutic factor. The routine use of electricity, he said, is certainly very uncommon in gynecological practice, and yet he himself, although by no means an expert in the use of this agent, had obtained some very excellent results with it during the last ten or twelve years, employing it in various affections with more or less benefit.

There are certain cardinal points to be remembered, enumeration of which is necessary before proceeding to speak in detail of his experience in special forms of disease.

First. The galvanic current is far more generally useful than the faradic, which, as a rule, has a stimulating effect. The galvanic, on the other hand, acts as a sedative.

Second. A mild, steady galvanic current will answer every purpose, and is in every way preferable to a powerful, interrupted one. The faradic current, however, is useful in proportion to its strength.

Third. Whenever the constant current causes pain, it is doing harm.

Fourth. Personally, he could never decide which pole, the negative or the positive, should preferably be placed within the body, provided care was taken that the current should not be too strong. The effect is apparently the same, whichever pole is used internally. There is, however, one prominent exception. In cases where there is circumscribed pain, the positive pole is the one to be placed near the painful point. In using the faradic current, it is of no consequence which pole is employed internally or externally.

These remarks, Dr. Mundé said, he wished to be distinctly understood as applying exclusively to the use of electricity in connection with the pelvic organs, and not to its effects in other portions of the body, such as the principal nervous centres, for instance.

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Fifth. He had always found it safe to begin with a mild current and gradually increase it to the required strength.

Sixth. When internal electrolization is to be employed, it is always best to introduce the internal pole before closing the connection, on account of the sensitiveness of the external parts. Dr. Mundé said he employed an electrode covered with leather for introduction into the vagina, but that he had been recently informed by an electrologist that this in reality afforded no protection to the parts.

Seventh. To be of any service, the treatment must be frequently repeated, and must be continued for a considerable length of time. As a rule, it is useless to make applications less frequently than twice a week, and in many cases they should be made every other day. A course of treatment by localized galvanization should last from three to six months.

Eighth. The results of faradization in chronic affections are less favorable than those of galvanism. But, while relief from pain and an amelioration of the general condition are very often obtained by this means, a complete cure is not to be looked for in many of the affections which come under the gynecologist's notice.

Among the pathological conditions referred to in which treatment by electricity is applicable, were the following:

Deficient Development of the Uterus and Ovaries. If the organs are merely rudimentary, nothing is to be hoped from this or any other treatment; but if the uterus is of the normal shape, though small (such as is seen in the *uterus infantilis*), and there is any tendency whatever to a molimen shown, there is a fair prospect of good results. Here the faradic current is to be employed, aided by the use of sponge-tents and appropriate constitutional measures. Such amenorrhœa is often associated with stunted growth, mental hebetude, etc., and the faradization should be applied every other day for a series of months. For a week before the time of the expected period, the current should be employed with increased strength and for a long time at each sitting. When the molimen is entirely absent, little is to be hoped for. Dr. Mundé did not think a galvanic stem allowed to remain in the uterus is of any special value, believing that whatever benefit is derived from such a contrivance is due simply to the fact that it is a foreign body, and thus has more or less irritative effect upon the uterus.

Chlorosis and amenorrhœa (including deferred and irregular menstruation) are often relieved by electricity, but it is by no means proper that very young girls suffering from such troubles should be subjected to a course of treatment by this agent. The cases are to be carefully selected, and the application of electricity is to be combined with judicious constitutional measures, as well as other local treatment. Perseverance is also essential to secure any good result.

Of course, the possibility of a physiological cause for the absence of the menses is not to be overlooked. In married women electricity will be called for in the treatment of amenorrhœa much more frequently than in unmarried, and it is often of great service when the circulation is sluggish and the energies of the system are directed rather to the formation of adipose tissue than towards the pelvic organs. The same is true as regards some unmarried women, and it is not infrequently found that when the flesh has been reduced the amenorrhœa disappears. No reliance, Dr. Mundé thought, is to be placed on the emmenagogues of the books. Better results are to be obtained, however, with permanganate of potassium; though no other agent is to be compared with electricity in value.

Subinvolution and Menorrhagia. Here the faradic current is indicated, at least in recent cases. In others of longer standing the constant current is of most service; though the electrode is not to be introduced within the uterus. In hyperplasia uteri galvanization is often of very great benefit, both for the relief of reflex neurosis which it affords and its utility in the removal by absorption of abnormal tissue. In this condition the long and frequent application of the current is called for, and intrauterine medication is to be employed in addition. In the rare condition of superinvolution Dr. Mundé had had no experience, but he said he would advise the same treatment for it as for amenorrhœa.

Chronic Oöphoritis and Pachysalpingitis. These affections are extremely painful and annoying, and he thought that the condition of the ovaries is quite analogous to that of the tonsils after repeated tonsillitis. The successive attacks result in a permanent increase of hyperplastic tissue. In enlarged tonsils there is no cure except removal, and a cure is not to be expected in the ovaries. The same is true in regard to chronic catarrh of the Fallopian tubes, and on account of the hyperplasia of the walls of the latter, he had ventured to apply the term pachysalpingitis. In connection with this trouble there is also peri-oöphoritis, or localized perineal inflammation, and the sufferings incident to the whole condition usually rendered life a burden. The only cure is salpingo-oöphorectomy, and in Lawson Tait's hands it has proved an operation comparatively free from risk, but it must be remembered that no other operator has met with the same extraordinary success. In addition to the danger under ordinary circumstances, there is a grave objection to subjecting young married women to an operation which deprives them of all hope of offspring, especially as a number of instances are on record in which conception and pregnancy have occurred in women in this condition. It is better, therefore, to reserve operative interference as a last resort, only to be undertaken in cases of extreme suffering when every other means of relief has failed, except in those instances where imminent danger to the patient calls for the prompt performance of the operation. Dr Mundé said that he had seen very great benefit derived from palliative treatment, and the use of electricity is often of great service in supplementing other local measures. It relieves pain for hours or even days at a time, and by its anæsthetic influence renders the diffuse thickening in the broad ligament less tender to the touch. While it is true that the relief is only temporary, there is in many cases a chance that pregnancy may occur, and in others that the menopause will soon supervene. The radical operation should be deferred, then, until it is absolutely called for.

Chronic Pelvic Cellulitis, Peritonitis, and Lymphangitis. The ordinary treatment for old pelvic adhesions affords very little relief, and there is nothing by any means equal to a mild constant current for this purpose. Acute or subacute exudations, however, do not offer a proper

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field for the use of electricity, on account of the danger of setting up new trouble. In lymphangitis the mobility of the affected glands, as a rule, distinguishes the affection from pelvic peritonitis, in which the masses of hard hyperplastic tissue are immovably fixed. The glands often feel like a bundle of angle-worms under the fingers. Their inflammation is usually secondary to some process of irritation, such as a lacerated cervix, etc., and for the chronic condition localized galvanization constitutes the most efficient treatment.

Obstructive and Neuralgic Dysmenorrhœa. The obstruction at the os uteri may be very slight at ordinary times; but when the endometrium becomes congested at the menstrual period, it is sufficient to give rise to much suffering by impeding the free exit of the flow. When other means have failed to relieve the difficulty, galvanic electricity will often be found of very great service; the negative pole of the battery being carried up into the uterus, and not more than ten cells being used. In some cases the pain was relieved very quickly by this means.

Uterine Displacements, Fibroid Tumors, etc. Electricity had been applied to relaxed ligaments in malpositions of the uterus, and good results reported; but he said he had had no experience with this method of treatment. In uterine fibroids he thought it had a future. Apostoli, of Paris, had reported quite remarkable results at the International Medical Congress at Copenhagen, and Everett, of Ohio, had also met with success in this field. The methods at present in use are, at all events, safe; which is more than can be said of the electro-puncture of Kimball and Cutter, which in more than one instance has resulted fatally. Dr. Mundé then referred to a case which he had seen in consultation with Dr. Freeman, of Brooklyn, who afterwards produced a cure by electrolysis, and reported it in a paper read before the King's County Medical Society. It was one of subperitoneal fibroid, and the galvanic current was applied by means of a sharp steel needle insulated to within a short distance of its extremity, thrust into the tumor. He thought that perhaps the necessity for putting the patient frequently under the influence of an anæsthetic may prove an objection to the method.

Conclusions. At the close of the paper the following conclusions were given:

First. Electricity is a valuable agent in gynecology, and one which deserves to be much more frequently resorted to than is now the case.

Second. Its application in gynecological practice does not require a special knowledge of the use of electricity.

Third. The remedy, if properly used, cannot do harm.

Fourth. It is of especial service in chronic conditions, and no pain is experienced if the galvanic current is employed.

Fifth. The faradic current is indicated in deficient development and want of tone in the pelvic organs.

Sixth. The galvanic current is to be used to promote absorption of adventitious products and allay pain.

Seventh. This method of treatment requires much perseverance.

Eighth. It is contraindicated in acute inflammatory conditions.

Ninth. The pathological conditions in which electricity proves useful are those in which other treatment often fails, or cannot be borne by the patient.

Tenth. In organic diseases a permanent cure or a restoration of the diseased organs to perfect health cannot be expected; but very marked relief, and that without danger, may often be afforded by means of electricity.

DR. FREEMAN, of Brooklyn, said that he coincided with Dr. Mundé in almost all that he had said. He commenced to use electricity in his practice some twenty-five years ago, when he was living in Illinois. At that time he employed only the faradic current. Sixteen years ago he removed to Brooklyn, and just afterwards a dyspepsia from which he had long been suffering culminated in acute gastralgia. For this he tried the faradic current, but without relief; and he was afterwards cured of it by means of the galvanic. He has now almost entirely given up the use of the faradic current except for the purpose of exciting muscular contraction, and this can also be accomplished by means of the interrupted galvanic. There is one other form of electricity which is not mentioned in the paper, viz., the static, and during the last four years he has used this forty times as often as either of the others in his practice. It has a great advantage in that it can be employed so easily and so pleasantly to the patient, and the removal of the clothing is not required as when they are used. One of the most useful purposes which electricity secures is the relief of pain, and on this account it has proved a great blessing, as it enables us to a large extent to avoid the use of opiates. Under the application of the static current pain often disappears like magic, and the patient feels a pleasant exhilarating effect not unlike that from champagne, but without any attendant disagreeable results.

Dr. Freeman then went on to speak of the treatment of uterine fibroids by electricity, and stated that he had that day seen the patient to whom Dr. Mundé referred in his paper. All that is now left of the tumor is some thickening of the uterine walls at the point where it had been situated. In this case the uterus was firmly bound down by adhesions, and the use of the knife was out of the question. He then mentioned the case of another patient, a married lady 26 years of age, who had a uterine fibroid. The tumor was as large as a cocoanut, and the cavity of the uterus measured four and three-quarters inches in length. The bladder was attached to the whole anterior surface of the growth, and severe cystitis had been set up by it. Posteriorly, it pressed upon the rectum, and caused great difficulty with the bowels. The patient also suffered greatly from dyspepsia, and was constantly confined to bed. On the 28th of February last she was put under an anæsthetic and electrolysis was resorted to; a round insulated steel needle being used for the purpose. On account of the density of the tumor the needle was introduced with great difficulty, and it was almost impossible to move it from one point to another. Thirty-two cells of a zinc-carbon battery were used. Afterwards the galvanic current was employed for two months for the relief of the dyspepsia and the patient's general condition. The tumor was then little more than half its former size. At the second operation, at which Dr, James B. Hunter, of New York, was present, the needle entered without any difficulty, and could readily be moved about in any

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direction, so greatly softened had the dense tissue become. In June the operation was again repeated, the patient in the meanwhile having been up and attending to her household duties all the time. In August she walked three-quarters of a mile to his office, and was found to be in excellent health. At present there is only some thickening of the anterior wall of the uterus left, and the organ is about the normal size.

A third patient, who lives at Saratoga, he saw for the first time last spring. He found there were two tumors in this case, and he gave her three treatments; eight days elapsing between the first and second, and one month between the second and third. A fourth treatment was given at her own home, in Saratoga, in the summer, and at this time he found that the larger tumor had disappeared altogether, while the smaller one was reduced to about one-half its former size. Since then the latter has disappeared also; but when he saw her last week, he discovered still another tumor, which appeared to be of a floating character and entirely separate from the uterus. This was treated November 2d, in the same way; on this occasion a Barrett chloride of zinc battery of fifty cells being employed, and the electrolysis kept up for fifty minutes. In none of these cases had there been any rise of temperature after the application of electricity in the manner described.

DR. A. D. ROCKWELL said that he had held for a long time that electricity should hold a higher position in gynecology, as well as in general practice, than it hitherto has done; and he was, therefore, much pleased to hear an expert gynecologist, like Dr. Mundé, making a plea for its more general employment in this department of medicine. While not, of course, a panacea, it is a remedy which has a very wide range of usefulness. He had seen it employed in the various conditions to which the author of the paper had referred, and could testify to the correctness of his statements. In subinvolution, however, he would expect that the galvanic current would be of more service than the faradic. The thing that interested him most, he said, because it was a new application of the remedy, was the use of galvanism in pelvic cellulitis. Electricity may now be well considered indispensable to the gynecologist.

DR. H. J. GARRIGUES said that for about thirteen years he had used this agent more or less in gynecological practice. The chief reason why he had not used it more is because it takes too much time. Dr. Mundé had stated in his paper that it is sometimes necessary to devote half an hour every other day to the treatment, and he did not see how any one actively engaged in practice could spare so much time as this. Another reason is, that he has found that he can get as good results with other remedies which do not occupy so much time. The condition in which he has most frequently employed electricity is amenorrhœa, and in this it has not always answered the desired purpose, not only in cases where the uterus, but also in those in which the difficulty was merely functional. The simple introduction of the sound, by its mechanical irritation, had proved about as useful as any other method of treatment in amenorrhœa. Internal remedies, especially iron and permanganate of potassium, had also proved quite satisfactory in his hands. As to the treatment of fibroids by electricity, the reports of so many favorable cases certainly deserve to call the careful attention of the profession to the subject. He would merely say, in conclusion, that one difficulty which he had met with in the use of galvanism was, that even with a weak current, the electrode introduced within the vagina produced an escharotic effect.

DR. BIRDSALL thought that the author of the paper had, on the whole, expressed sound views. The literature of the subject, it must be confessed, is rather mystifying and unsatisfactory. One great difficulty is to find out what the observers who have reported cases have really used. He believed, however, that the time is coming when by the more general spread of knowledge on this subject we shall have a better opportunity to compare notes. Dr. Mundé had stated that it is not necessary to have great skill in the use of electricity to apply it successfully in gynecological practice. While, however, good results may be obtained without this, he thought that much better results can be secured by the employment of more exact methods, and that the adoption of the latter will also have a better effect upon the profession from a scientific point of view. At present, one of the great difficulties met with is to get at the strength of the current applied in any given instance. The number of cells reported as used, while (provided the battery is in good working order) it may act as a guide to those who are familiar with exactly the same apparatus, conveys no idea of the power employed to others reading the account. The only real test is the galvanometer, and, notwithstanding the difficulties in the way of using it, he trusts that it will be generally adopted at no distant date. As to the matter of subinvolution, he thought that galvanism is much more serviceable than the faradic current, which is indicated in all cases where we wish to excite muscular contraction or cutaneous irritation. The most important, perhaps, of the conclusions enumerated by the author of the paper, is the one in which the caution is given about using electricity in acute and subacute cases. The effects of this agent, he went on to say, are exceedingly transient, and the applications should, therefore, be often repeated; as, for instance, every other day. When this is done, a very mild current will answer every purpose.

DR. MALCOLM MCLEAN remarked that Tait's operation is being overdone. Though he has performed it himself but once (and, fortunately, with a good result), he has seen a great many cases of it, and there is one point about the operation which does not appear in the reports of it. This is, that the effects are not usually so lasting as generally supposed, and he thought that if all the cases which are reported as cured were to be examined at the end of say eighteen months, fifty per cent. of these patients will be found to be suffering with the old pelvic pain. Hence, the results are by no means satisfactory, and he believes that in the future galvanism will to a large extent take the place of Tait's operation.

DR. BURKE mentioned three cases of metrorrhagia and menorrhagia in which trachelorrhaphy was performed with no effect, but in which positive results were obtained from the use of the faradic current. When it was commenced, galvanism had already been tried in vain; yet in from two to four months the patients were all cured by faradization. Nearly two years have now elapsed, and the results have been permanent.

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DR. MUNDÉ, in closing the discussion, said that most of the points referred to by Dr. Birdsall were touched upon in the portions of the paper which it was necessary to omit in the reading. This was also true of the objection which Dr. Garrigues had raised, as to the amount of time required, since he had distinctly stated then that the process is a very tedious one, and that it requires no little personal sacrifice on the part of the gynecologist to carry out; but, nevertheless, if the patient's interests demand it, and the same results cannot be obtained in any other way, he thought it the physician's duty to perform the task. In regard to subinvolution, he recommends the faradic current only in the early stages with menorrhagia. Afterwards the condition is very much the same as in hyperplasia, and the galvanic current is chiefly to be used. He has never had any experience with static electricity, and should be glad to give it a trial. He did not wish to be understood to mean that no skill is desirable in the application of electricity in gynecology; but only that intelligent physicians, not specially skilled in it, can do great good with it, though he quite agrees with Dr. Birdsall, that a high degree of skill is very desirable in order to secure the best results possible. His object in the paper had been to popularize this method of treatment in gynecology, so far as he is able to do so.

THE PRESIDENT said he was very glad that the paper had been read, as he thought it was very much needed. Within a day or two he had taken the trouble to rush through three of the most important works on gynecology by German authors, and the use of electricity is scarcely alluded to in them. The same is true of gynecological literature in general, and about all the knowledge at command on this subject is to be found in works devoted to electro-therapeutics and neurology. Having expressed his surprise that the author of the paper had not referred to the brilliant results obtained by Thomas, by the use of electricity in extrauterine pregnancy, Dr. Mundé stated that in the part of the paper which has been omitted he had spoken of the matter, though as it is one pertaining rather to obstetrics than to gynecology proper, he had not given it a detailed notice.

PHILADELPHIA PATHOLOGICAL SOCIETY.

Stated Meeting, October 14, 1885.

THE PRESIDENT, J. C. WILSON, M. D., IN THE CHAIR.

DR. J. COLLINS WARREN, of Boston, read a paper on

A COMPARISON OF THE CHANGES IN ARTERIES AFTER LIGATURE AND IN THE DUCTUS ARTERIOSUS AND UMBILICAL ARTERIES AFTER BIRTH.

After the ligature of an artery in continuity, the earliest changes noted are the formation of the thrombi within the vessel, and the development of a mass of inflammatory tissue or callus around the point of ligature externally. No perceptible cell action can be observed in the inner wall, with low powers, during the first week, although under favorable circumstances a proliferation to a limited extent of the endothelial cells near the point of ligature can be seen with high powers, and occasionally a few wandering cells may be found to have penetrated the walls of the vessel at the same point. In the second week the bundle of fibres of the adventitia, which were surrounded and held by the knot, have been absorbed, and the two ends of the vessel retract slightly from one another, leaving the ligature embedded in and partly disintegrated by the granulation cells. The walls of each portion appear to form a complete cul-de-sac, and it looks at this time as if the healing process were complete; but it can hardly be said to have more than begun, as the vessel has not yet passed through what may be considered as the first stage of healing.

The beginning of the second stage is marked by an unfolding of the ends of the vessel, the walls separating somewhat after the manner of opening of a bud, which permits the entrance of a considerable quantity of the granulation tissue. A disintegration of the thrombus follows and we have now a fully developed external and internal callus, a small fragment of clot still protecting the latter from the current. The ligature may be totally disintegrated and absorbed, or it may have become encysted, or finally it may have created a small abscess about itself which has discharged the fragments of thread through a sinus opening externally.

The second stage is completed when the internal growth has reached the neighborhood of a branch. After this we have an absorption of the callus, which, as in fracture, is only a provisional structure, and eventually the two ends of the vessel are found held together by a slender cord of varying length. The walls of the vessel are slightly separated at each end by a cicatrix consisting of connective tissue externally, inside of which is another layer consisting largely of unstriped muscular fibre, the surface being covered within by a new endothelium. The cicatrix is always pierced by a vessel which terminates in a number of capillaries ramifying in the cord. We have here a scar made up of three layers resembling closely the three coats of the vessel. In the large vessel of amputation stumps we have a somewhat different series of changes. Soon after the ligation the end of the vessel may be seen embedded in granulation tissue and containing a thrombus of varying length. By the second week there is a marked change in the intima extending for some distance above the point of ligation, probably to the first large branch or to the origin of the vessel. Examined several months later, when the healing process has been completed, the vessel is found to be preserved in the form of a cord running from the first large sized branch to the cicatrix of the stump; on laying open this cord the walls of the vessel are found preserved, the interior being filled with new tissue leaving spaces occupied by one or more vessels. There has been a process resembling that known as obliterating endocarditis, by which the calibre of the blood channel has been narrowed to an extent to adapt it to the diminished blood-supply. In this obliterating tissue we find comparatively large vessels with new coats consisting of an endothelium, an elastic membrane, and also a new media. An erosion preparation would best represent the condition of the arteries of the stump at this time. The main artery would, after giving off its largest branches, break into a spray of smaller vessels no one of which would predominate.

A comparison of these two modes of healing with the changes seen in the arterial system, seen after birth, shows certain resemblances in the two processes. The ductus arteriosus about the time of birth differs consider-

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ably from the structure of the aorta and pulmonary artery. The media is much thicker than in either of these vessels, it is thrown into irregular folds which are increased at the time of birth, and help to narrow its calibre. The distinctions between the different layers of its wall are less marked than in other vessels. The lamina elastica is indistinct, and in places apparently wanting; the media consists chiefly of longitudinal layers of muscular fibres, a few circular bundles existing in the innermost layer. A few weeks after birth a greater portion of the walls of the ductus undergoes hyaline degeneration, the inner or circular fibres of the media alone remaining, these being reinforced apparently by a growth from the media of the larger vessels. At this time there is an active growth of long spindle-shaped cells with staff-shaped nuclei at the edges of the media bordering on the opening into the aorta, there is also a moderate thickening of the intima. Eventually the hyaline tissue becomes absorbed and is replaced by a ligamentous band of fibres which becomes continuous at either end with the media of the larger vessels. At the aortic end in a longitudinal section we see the media slightly separated. At the point of the cicatrix, and between them, and also continuous with them, are the longitudinal fibres of the ligamentum arteriosum. In this ligamentous tissue, and between the edges of the media, are numerous new muscular cells; nearer the surface is a layer of thickened intima, which in the aorta has not only connective tissue in it, but also a deep musculo-elastic layer; in the centre of the depression marking the site of the cicatrix, a small vessel is given off which penetrates into the axis of the ligament, where it either loses itself in a capillary network or becomes continuous with a similar vessel coming from the pulmonary artery. We have here conditions closely resembling those which have been described as existing in the cicatrix of a large artery after ligature in continuity, namely, the slightly separated ends of the media between which lie the fibres of the ligament connecting it with the pulmonary artery, a new intima, and a new growth of muscular cells, and finally a central arteriole. The only point of difference is the preservation of a layer of muscular fibres which form an outer wall to the ligamentous band, a much-needed support at a point exposed to great tension. Further protection is afforded by the oblique insertion of the ductus into the aorta, diminishing the pressure upon this particular point.

At birth the umbilical artery, or that usually called the hypogastric artery, the portion within the abdomen, at its origin from the internal iliac, is a vessel of considerable size; being, in fact, a continuation of that artery. At its termination in the umbilical wound it has greatly contracted, and is filled with clot for a distance of about one inch. The outlines of the various walls are not as distinct as in other vessels, and the elastic lamina are for the most part wanting. No special change is seen in the elements of the walls of the vessel, except a slight accumulation of endothelial cells near the apex of the thrombus. A few weeks later there is a distinct growth on the inner surface of the wall up to its point of origin, the terminal portion having undergone a hyaline degeneration and obliteration for a short distance. The vessel has greatly contracted throughout its entire length, and its calibre is further diminished by the growth in its interior. Cross sections taken from the superior vesical artery in adult life show the media as a wall, thick out of all proportion to the size of the vessel, and consisting not only of its original wall, containing longitudinal muscular cells interspersed with elastic tissue, but also an inner circular row of cells, which is provided with a well-formed elastic lamina. It seems probable that the greater portion of the hypogastric artery has been preserved, the ligamentous band, which extends to the umbilicus consisting of the obliterated extremity of that vessel much elongated during the process of growth. The series of changes which occur in the hypogastric artery after birth is closely analogous to that seen in the main trunk of an amputation stump—a slight portion of each vessel is destroyed, both retract and are attached to the terminal cicatrix by a band of fibrous tissue, both remain as previous vessels with thickened coats and narrowed calibre. In both the process is not unlike that seen in the so-called obliterating or compensatory arteritis. Arteritis hardly seems a term applicable to the changes taking place in normal arteries after birth, nor can the alterations which have been developed through the whole length of a large vessel, extending a considerable distance from the original seat of inflammation be strictly regarded as of an inflammatory nature. May not the obliterating growths found to exist simultaneously in terminal arteries in widely removed portions of the body of the same individual also be regarded, not as of inflammatory nature, but rather as a secondary and formative process, closely connected with disturbances in the mechanism of nutrition, designed to adapt the vessels to a diminished blood-supply?

DR. S. W. GROSS said, in view of the fact that Dr. Warren's teaching seemed so directly opposed to that of other observers, he would like to have some points cleared up. He would, therefore, ask whether Dr. Warren held: 1st, that instead of the external coat's sloughing and coming away with the ligature, where it is so included, the pressure of the ligature sets up an irritation which causes the adventitia to return to its embryonic state with a reconversion, after the ligature has cut through this, to connective tissue; and, 2d, whether the repair of arteries is brought about by the ingrowth of the cicatricial tissue, which he likened to provisional callus. together with some proliferation of the muscular cells of the media.

DR. RANDALL said that, as the result of careful study of the subject, he had always found the clot present at first, and that it was honeycombed, even in the first few days, by the contraction of its fibrin, through the spaces thus formed the blood seemed to be circulating. Cells, either original white cells, or of endothelial origin, occupied the walls of these cavernous spaces, and seemed to sheathe them. The red cells early melted down into a homogeneous mass, furnishing the framework upon which the reparative tissue was built. The "plastic clot" of some observers he had not seen, the new cells being distributed throughout the old clot as well as upon the vessel walls, and not specially collected in the immediate neighborhood of the ligature. The obliteration of the vessel was accomplished by the growth and contraction of the trabeculæ of new tissue built upon the remains of the original blood clot. Even close to the ligature he had not found the vessel walls greatly altered, merely showing a great increase in the nuclei and in the number and size of the vasa vasorum, the

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lamina elastica being distinct, and as a rule intact. Toward the end of the first month the new tissue was largely spindle-cells, but careful staining had given no suggestion of muscular tissue. But, not having carried his study beyond the first month, he had no data upon this subject, since the development of muscular tissue is claimed to occur only at a later stage.

DR. FORMAD was inclined to favor the views of Dr. Randall. The observation of Dr. Warren, that the new-formed connective tissue played the most important part, was to him entirely novel. He thought probably that pressure upon the artery from without, with consequent diminution in its lumen, might bring about a condition more analogous to the growth of fœtal life than to inflammation.

DR. MEARS remarked that we are liable to be confused in considering this subject by the presence of the blood in the vessel. So far as the process of healing after ligature is concerned, we may consider only the structures which enter into the formation of the vessel wall, which is complex in character and composed of connective, elastic, and endothelial tissues. Dr. Warren has given us a very clear demonstration of cicatrization as it occurs in these structures after application of the ligature.

DR. TYSON said the most novel feature to him in Dr. Warren's observations was the part played by the muscular tissue. This apparent increase in the muscular tissue he was inclined to believe is only a proliferation of intramuscular connective tissue. He is becoming more and more convinced that there is only one kind of inflammation, the interstitial. He feared that he might himself mistake a proliferating connective tissue with spindle cells for muscular tissue. It is true that new-formed capillaries and arterioles have muscular walls, but the development of these seemed to him to be a slower process. He had expected to find a process of repair in the ductus arteriosus different from that in an ordinary artery. This process, he had expected, would be a true endarteritis, for it seems that the conditions of closure here are rather different from those in the ligaturing of an ordinary artery, and in the umbilical artery where we have also ligation practised.

DR. WARREN, in closing the discussion, said that in cases where there is much breaking down and little repair, there might be a sloughing of the external coat, yet in his experiments this part of the arterial wall did not slough, but was simply absorbed by the granulation tissue, as is the ligature itself in some cases. In the normal condition even the elastic lamina is not a perfectly continuous plate; he did not refer to these breaks, however, but to numbers of little ruptures incident to the pulling out of the wound of an artery in the act of ligature—however, this need not necessarily occur. He had not attempted to identify anything like muscular tissue early; this could not be recognized till we had a permanent cicatrix formed. He had carefully eliminated all sources of error, and it seemed to him that in almost all cases there was a considerable number of these muscular cells. The layer was not always as well marked as in his diagrams, especially is this true of human cases, but these had all been in alcohol for some years; of the fresh specimens he had selected only those in which he had considered the process complete. In a specimen which he had here to-night, through an opening in the lamina elastica cells could be traced from the muscular layer, those in the inside resembling exactly those outside. These facts, together with the fact that we have normally a few muscular cells inside of the lamina elastica, lead him to believe in the proliferation of the muscular tissue. The disintegration of the blood-clot is accomplished by granulations growing inward from the callus, there being two sets of bloodvessels, one in the granulations, the other (blood-spaces rather) in the clot itself; these unite about the end of the first or second month.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, October 6, 1885.

THE PRESIDENT, W. R. BIRDSALL, M.D., IN THE CHAIR.

DR. E. C. SEGUIN read a paper entitled

A CONTRIBUTION TO THE PATHOLOGY OF HEMIANOPSIA OF CENTRAL ORIGIN; CASE WITH SPECIMEN.

He first gave a brief synopsis of views, anatomical or pathological, of hemianopsia of basal or peripheral origin, recognizing the following types:

1. Horizontal hemianopsia, superior or inferior, usually due to lesions within the eye, and hence of less interest to the neurologist.

2. Vertical hemianopsia, always caused by a lesion of the basal visual apparatus, or by disease in a certain limited part of the cerebrum.

a. Temporal hemianopsia, in which the temporal half of both visual fields is dark.

b. Nasal hemianopsia, in which the nasal half of both visual fields is obscured.

c. Lateral hemianopsia. This is often designated homonymous hemianopsia. In this variety the nasal half of one visual field and the temporal half of the other are dark, so that with one or both eyes open the patient sees the same half of any object placed in front of him. This variety is the one which results from a truly central lesion, and forms the object of study in the paper.

Varieties *a* and *b* are caused by lesions variously placed in or around the chiasms of the optic nerves.

The author proceeded to analyze the recorded observations of hemianopsia due to cerebral lesion, 42 in number, including the author's own case. Of these, 37 were medical, and accompanied by autopsies; 5 surgical, followed by survival of the patient. These relatively numerous observations were classified as follows:

a. Cases of lateral hemianopsia, indefinite or irrelevant, and useless for localization study, 34 in number, observed by Charcot and Pitres, Linnell, Wiethe, and Petrina.

b. Cases of lateral hemianopsia from lesions of parts of brain not directly related to the optic apparatus, 3 cases; by Hirschberg, Huguenin (Obs. of 1876), and Pflüger.

c. Cases of lateral heminanopsia from lesions involving chiefly the thalamus opticus or corpus geniculatum laterale, 6 in number; by Jackson and Gowers, Pooley, Dreschfeld (3 cases), and Rosenbach.

d. Cases of lateral hemianopsia from lesions chiefly or exclusively involving the white substance of the

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occipital lobe, 11 cases; by Levick, Hosch, Baumgarten, Dmitrowsky and Lebeden, Westphal (1881), Senator, Sturger (Case VII.), Wernicke, and Hahn, Jany, Richter, and Schmalz.

e. Cases of lateral hemianopsia of external or traumatic origin, 5 cases; by Keen and Thompson; reëxamined by Dr. Seguin, Hughes, Schmidt, Rimpler, Heuse, and Nieden.

f. Cases of lateral hemianopsia, due to lesions involving the cortex of the brain and subjacent white substance, 13 cases; by Westphal (1882), Stuger (Case VIII.), Förster, and Wernicke; Jastrowitz (2 cases), Curschmann, Nothnagel, Marchand, Chillou, Haab, Huguenin (1882), Féré, and the author's case.

This last category being by far the most important for the study of the localization of the visual centre in man, Dr. Seguin gave full abstracts of all these cases. The lesions in all were so placed as to cumulate toward the mesial aspect of the occipital lobe.

This result was shown by means of a shaded chart, consisting of a diagram of the mesial and lateral views of the brain, upon which the lesions of the thirteen cases were reproduced with one layer of India ink. The result was strikingly visible in the great blackness of an area upon the mesial aspect of the cerebrum, including the lower part of the cuneus and the fifth temporal gyrus (Ecker).

To this locality, also, was limited the lesion found in the following cases: Haab's, Huguenin's, Féré's, and Seguin's. These were single lesions, and no paralysis or anæsthesia had been observed during the patient's life—only hemianopsia.

Dr. Seguin's own case was as follows: A man, æt. 46, affected with malignant endocarditis (mitral vegetations), which proved fatal in sixteen months from first observation in January, 1884, through repeated visceral embolism. The case also exhibited for many weeks an exquisite intermittent form of fever, closely imitating malarial intermittent.

About December 5, 1884, Mr. D. suddenly complained of "blindness of the left eye," and slight numbness through the whole left side of the body. He strongly insisted then, and frequently thereafter, that his left eye was alone affected, because he could not see to his left. Examination showed well-defined left lateral hemianopsia, the vertical line passing a little to the left of the point of fixation. In a short time the numbness passed away, but the hemianopsia persisted until death. For many months before death Mr. D. was able to read and write easily and attend to business outside, in spite of the hemianopsia.

The lesion found at the autopsy was a large old patch of yellow softening, involving the greater part of the right cuneus, almost reaching the apex of the occipital lobe, and the fifth and fourth temporal gyri, extending also front and into the gyrus hippocampi. This lesion was found to be due to blockade of the occipital artery, branch of the posterior cerebral. The white matter was involved to a depth of several millimetres.

No sections were made in the fresh state of the specimen, in order to prepare it for more careful examination when hardened. Unfortunately, this process was unsuccessful in part, and only the occipital end of the brain became hard. The absence of decided motor and sensory symptoms during life, however, makes it quite certain that there were no other gross lesions in the brain.

From these four cases, supported by the cumulative evidence of all the others, Dr. Seguin considered it as well proven that the visual centre (receiving impressions from one corresponding half of each retina) in man is in the cuneus and adjacent gray matter below it. A destruction of this part of the hemisphere inevitably produces lateral hemianopsia of the field on the opposite side of the body.

As regards those few cases in which the lesion causing lateral hemianopsia is situated upon the lateral aspect of the hemisphere, in the inferior parietal lobule and the gyrus angularis, Dr. Seguin called attention to the fact that the optic fasciculus of Gratiolet and Wernicke, on its way from the primary optic centres, latter end of the posterior horn of the lateral ventricles to the cuneus, passes close under these gyri, and a lesion which penetrates at all beneath the gray matter of their cortex must intercept, by pressure or by destruction, the optic fibres. These are lesions intercepting communication between the eyes and the visual centre, while lesions of the mesial aspect of the occipital lobe destroy the centre itself.

DR. T. R. POOLEY said that, without knowing at all the direction which Dr. Seguin's paper would take, he had hastily looked over his records, and briefly abstracted five cases of hemianopsia, of which he had notes. One of these cases is the case referred to by Dr. Seguin in his paper. He felt quite incompetent to discuss the physiological and theoretical question as to the location of the lesion, and the importance of different symptoms in helping us exactly to locate the lesion in the brain. Nor would he at this late hour refer to all the cases of which he had intended to relate somewhat in detail the clinical histories. He would content himself with speaking only of one case which has recently come under his observation, and which is now under treatment. It is a case which he saw a week ago—that of a gentleman aged 35, who came under his care in 1879 for comparative blindness of his left eye, which he found to be due to circumscribed choroidal exudation situated near the macula lutea. In his former experience with such cases, he always believed them to be due to syphilitic infection, and careful inquiry into the history of this case showed it to be also due to this poison. The patient remained for a time under treatment for this inflammatory exudation, from which he recovered with a scotoma, and enjoyed comparatively good health and freedom from all further syphilitic manifestations until a week ago, when he consulted Dr. Pooley again.

On this occasion the patient was driving with his wife in the country, and suddenly became perfectly blind. This blindness lasted for but a few moments. Upon recovering, he ascertained that there was dimness of vision upon the left side, which continued until he came to see Dr. Pooley. Examination showed left homonymous hemianopsia, the blind area extending almost to the point of fixation in each eye. Examination of acuteness of vision showed in the left eye (and this is interesting because of the previous condition of the eye) $\frac{22}{C}$; the right eye, $\frac{20}{XX}$, or perfect. The optic disks were quite

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normal; the bloodvessels were of full size; there was no indication of atrophy of the optic nerve by neuritis.

The interesting and remarkable fact in this case, is the improvement which took place within a week from the commencement of treatment. On account of the previous history of the case the patient was placed upon large doses of iodide of potassium. Former experience with the use of the drug, however, led Dr. Pooley at first to give comparatively small doses, only fifteen grains. But he found that the patient tolerated large doses much better than he did small ones, and he immediately began pushing the remedy, so that he gave him one drachm three times a day by the third day. Already upon the first day after treatment had been begun the visual fields had increased in extent, and this increase in the visual field has steadily continued until the present date. Unfortunately he had not had opportunity to make measurements with the perimeter, the patient being treated at his home, but he might estimate that the field of vision has extended from near the point of fixation to one-third the normal limits, the increase being apparently symmetrical. He should like very much to have Dr. Seguin's opinion as to whether in a case of this kind, in which there has been such marked improvement within a week's time, we may hope for permanent benefit.

DR. M. A. STARR thought that the list Dr. Seguin had presented is a complete one with perhaps a single exception, that of a case presented by Demange, in the *Revue de Médecine* for May, 1883. That case is referred to by Dr. Gowers in his last work on *Diseases of the Brain*, in a way to lead one to suppose that it supported the assertion of Ferrier, that the angular gyrus is the centre for vision. He has found, however, on looking up the case, that the lesion was one which coincided very largely with that of the first case of Westphal, and is very well represented by the diagram shown by Dr. Seguin of that case. It was a very large lesion, involving both parietal lobules and the occipital lobe. Gowers refers to that case as proving that a lesion upon one side of the brain may produce blindness of the opposite eye, and says it supports Ferrier's assertion of amblyopia being due to lesion of one angular gyrus. In the original report, however, it is only stated that the patient could not see well with the left eye, and it does not state that there had been any careful measurement of the field of vision. Therefore, in all probability, the patient had hemianopsia, and as in a number of cases reported by Dr. Seguin, and in a number which he himself had collected, lack of careful observation on the part of the examining physician failed to elicit the symptom, which was undoubtedly present. The necessity for careful examination in all of these cases has been dwelt upon by Dr. Seguin, and he thought it ought to be emphasized, because it is evident, from the history of these cases, that a patient with hemianopsia does not notice the exact field of vision, but only notices that he is blind in one eye, and refers it to the eye whose field of vision is most largely implicated. The necessity for such an examination is shown in the fact that Dr. Seguin has been able to collect eight cases in addition to those which he had collected—that is to say, eight new cases have occurred since January, 1884. This great increase in the number of cases of hemianopsia is only apparent, few cases having been recorded previously because of imperfect examinations of the visual field.

He would not anticipate Dr. Seguin in answering the question asked by Dr. Pooley, but he had in his hand a case published by Baer in Volkmann's *Sammlung klinischer Vorträge*, which is almost identical with that related by Dr. Pooley this evening: a case of hemianops a coming on suddenly in a syphilitic individual; a se ies of diagrams are given, showing the progressive improvement of the patient, and final complete recovery.

His attention was first called to this subject three years ago, by seeing a case of hemianopsia in Charcot's wards, and in his lecture on that case Charcot virtually retracted his own diagram and adopted one like that shown by Dr. Seguin. So that, he thought, we should cease to copy the old diagram made by Charcot, as it has been abandoned in France and Germany.

The absolute necessity for such a collection of cases as Dr. Seguin has made for settling any disputed question of localization is perfectly evident to all. It is the only way in which this question of localization can be really determined. To make conclusions from physiological experiments, he thought, is no longer warranted. We must go to carefully made autopsies.

It may be interesting to know that in October, 1858, the Pathological Society of Philadelphia discussed the subject of abscess of the brain, and at that meeting Dr. Weir Mitchell presented a case with the records, in which a large abscess at the posterior part of the brain, involving both occipital lobes, was attended with blindness, and the blindness seemed to be the chief *local* symptom (as we should say now) of the disease. The Pathological Society were at a loss to explain the occurrence of blindness with this lesion in the occipital lobes. Dr. Starr thought that it was encouraging to the general cause of clinical diagnosis that now, after the lapse of these years, we are able to explain perfectly that case which then so puzzled the Pathological Society of Philadelphia.

DR. SEGUIN closed the discussion, and apologized for having detained the Society with so long a paper. With reference to Dr. Pooley's question, he would have to decline to answer it for want of experience. He had never seen a case of hemianopsia which was not embolic or possibly due to a tumor, and in which there was no indication for treatment.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, October 27, 1885.

THE PRESIDENT, ROBERT F. WEIR, M.D., IN THE CHAIR.

SIMPLE FRACTURE OF THE PATELLA TREATED BY WIRING THE FRAGMENTS; SECOND FRACTURE TREATED BY SUTURING THE FRAGMENTS WITH CATGUT; FALSE MEMBRANES WITHIN THE JOINT SEEN AT THE TIME OF THE SECOND OPERATION.

DR. L. A. STIMSON presented a man, twenty-one years of age, in whom he had had the opportunity of observing the condition of the knee-joint two and a half months after the patella had been wired for a simple fracture. The patient came to Bellevue Hos-

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pital last June with simple fracture of the patella, and was treated by one of Dr. Stimson's colleagues, by making a transverse incision and wiring the bone with silver wire, two sutures being inserted. The case did perfectly well, and the patient recovered without any elevation of temperature or manifestation of trouble in the joint. When Dr. Stimson first saw him, two and a half months after the operation, the fragments were closely united without independent mobility, and the patient was walking about the wards with a condition of the knee which allowed the joint to move through the arc of a circle about twenty degrees. About one week afterward, while descending the stairs, without falling, stepping down with the sound leg forward, he fractured the patella which had been broken. Previous to the accident Dr. Stimson had noticed what seemed to be one of the wire sutures, which could be felt under the skin, and the patient had felt a slight pricking pain at that point throughout the progress of the case. In the second fracture the old cicatrix was torn open. Dr. Stimson enlarged the wound and found that the second fracture had taken place exactly in the line of the first; one wire was entirely, the other almost entirely, loose in the wound, and the site of each was marked by small cavities in the fragments. The surfaces of fracture were not so rough as usual, and Dr. Stimson thought that union had taken place, in part at least, by a very thin intermediate layer of fibrous tissue. On the inner corner of the upper fragment, where in the first fracture there had been a small loss of tissue, there was a distinct fibrous band as large as his little finger. On wiping out the blood he saw a membrane of new formation underlying the patella and entirely separating the fracture from the cavity of the joint, except at one point where it was torn for half an inch; through this opening he was able to see false membranes within the joint connecting the condyles of the femur with the tibial head. He cleansed the wound, brought the fragments together with catgut, closed the wound, and the patient is now well. The fragments have again united, and there is some motion in the joint. It is now two months since the second fracture.

The reason Dr. Stimson reported the case is because he saw not long ago the statement that there was no case known where any membranes of new formation had formed in the joint after wiring the patella for simple fracture. But this joint was full of them, and they had formed without any inflammatory reaction, or any symptoms indicating these formations.

Again, it has been claimed that a patient with a fracture of the patella, treated by wiring, can be dismissed cured at the end of four weeks. Dr. Stimson did not know of any other similar fracture which is perfectly sound at the end of so short a period of time; but here is a case in which two and a half months have elapsed since the fracture, which has done well, and which, if reported two or three months ago, at the stage at which most cases have been reported, would probably have been cited as another example of the safety and value of the method of treating by wiring; and yet the union proved to be not strong enough to bear the weight of the body in descending stairs, and the joint did not allow of more than twenty or thirty degrees flexion.

DR. BRIDDON asked whether catgut had been used for this purpose before.

DR. STIMSON said he had used it in operations upon joints several times. He thought it would last probably three weeks.

DR. W. T. BULL asked, What is the ultimate prospect, so far as motion is concerned, in this joint?

DR. STIMSON answered that it is poor.

DR. BULL asked whether that is not the average in all cases in which the patella is wired.

DR. STIMSON said he had not seen good motion in any case, but it had been reported that the operation gave good motion.

DR. POST asked, when the choice is between a stiff and a weak joint, whether the stiff joint is not to be selected.

DR. BULL thought it is.

THE PRESIDENT said, Is it not true, also, that, after fracture treated by the ordinary method, better results are obtained than in the joint of the patient presented?

DR. STIMSON replied that a good deal better result was obtained.

TUBERCULAR DISEASE OF THE TARSUS; RESECTION OF ASTRAGALUS AND SCAPHOID BONES.

DR. W. T. BULL presented a young woman, in order to show the result of an operation which was performed eighteen months ago. She presented herself at the New York Hospital on the 17th of March, 1884, with the history that she had been in somewhat delicate health, having had cough, but no hæmoptysis. Seven weeks before admission she complained of lameness in the right foot, and inability to walk without considerable pain. The motions of the ankle were nearly perfect. The only evidences of disease of the bones of the tarsus were a decided tenderness over the scaphoid, and a slight swelling below the ankle; and, besides, there was atrophy of the calf upon that side to the extent of being one inch smaller than its fellow. For seven weeks the foot was treated with plaster-of-Paris splint and applications of oleate of mercury, thermo-cautery, belladonna liniment, etc., without improvement. Dr. Bull then made an incision upon either side of the ankle and removed the astragalus and scaphoid bones. He did not detect any indications of tubercular disease of the synovial membrane, but the bones were softened. They were removed entirely with knife and scissors. The wounds healed promptly, with the exception of the sinuses left by the drainage tubes, which were somewhat slow in closing. In about a month she was able to walk about and bear some weight upon the foot, but it was with considerable pain. Five months later he discovered a good deal of tenderness over the os calcis and suspected similar disease of that bone; and, although the motions within the ankle-joint were quite good, he introduced a drill by means of the dental engine into both malleoli and also into the os calcis. In the former he found no evidence of disease, but in the latter he found a soft spot which he drilled out and treated with iodoform, and it healed promptly. This operation was performed eight months after the first one, and since that time the pain in the ankle and foot has gradually disappeared. Now the functions of the foot seem to be perfectly performed, and the only deformity is a shortening of the foot by about one inch. The calf of the leg has increased in size until it is only one-half an inch smaller than the other.

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Unfortunately, to make the diagnosis positive, the bones were lost, and therefore not examined for micro-organisms; and, although they did not present to the naked eye any of the characteristic appearances of tubercular lesion, Dr. Bull felt warranted in believing that the disease was of that nature.

It may be remembered that, at the meeting of the Society last spring, he presented a patient, an Italian, from whom he had removed the entire tarsus for tubercular osteitis, and the result did not seem to be satisfactory, as the man experienced some pain in walking. His condition has improved materially since that time, and he is able to do all sorts of active work without discomfort.

DR. H. B. SANDS thought that the results in cases of excision of the tarsal bones are usually better than may be anticipated; and the observation made by Dr. Bull, that the patients continue to improve for a considerable period after the operation accorded with his own experience. In cases of tubercular disease of the joints in which operations for the removal of a diseased bone are performed by means of a sharp spoon, he supposed that frequently a sufficient amount of periosteum is left to reproduce, to a considerable extent, the bone removed, and in this manner to contribute to the stability of the foot. He had repeatedly noticed, after dealing with the tarsal bones, and also after removal of the carpal bones, that, although a large portion of osseous tissue was removed, after the lapse of six months or a year, the parts become so firm that one could hardly believe that such an amount of bone had been taken away.

DR. C. T. POORE, in cases occurring in children where he had endeavored to remove the os calcis and leave a portion of the bone with the periosteum, had subsequently been obliged to remove the entire bone because of non-closure of the wound, and because the disease was extending to other bones. In one case he was certain that he left the anterior portion of the bone undisturbed. Eight or nine months after the first operation he found the cavity, as it were, of the os calcis filled with dense fibrous tissue. In children he had not been able to save any of the bone, but had removed everything, and the results had been very good.

CORRESPONDENCE.

THE REPORT OF THE MEETING OF THE COMMITTEE ON THE INTERNATIONAL MEDICAL CONGRESS.

To the Editor of THE MEDICAL NEWS.

SIR: My attention has just been called to a criticism in the *Association Journal* of October 31st, by an officer of the ex-Committee of Arrangements for the International Medical Congress, of a letter of my own, which appeared in your issue of October 10th.

The effort reminds me so much of a cobbler striving to patch with flimsy material his originally bad work, that I might complacently afford to stand in my old shoes. But for the benefit of my professional brethren, who may, through inadvertence, be deceived, I will notice only the two points in the criticism which may seem to affect my position. My letter stands as the public record of my action in the Committee.

1. I am accused of having "persistently endeavored to obstruct the proceedings of the Committee" (at the meeting in New York, on the 3d and 4th of September), "by frittering away valuable time with trivial objections." These objections of my own are on record, and need not be defended. No doubt they were annoying to some. But the author of the complaint has inadvertently paid me a very great compliment, for which I am grateful. To "obstruct proceedings" which I have shown to be irregular and prearranged by certain parties to advance their special ends, regardless of the unity, harmony, and well-being of the profession, can only be regarded by proper thinking persons as a meritorious act.

2. Next it is stated that I complained that "a letter which he (I) forwarded to the Temporary Secretary was not read before the meeting of the Committee in Chicago, or embodied in the report which was recently published." My letter is referred to as on a par with two hundred letters received from other parties (not members of the Committee), to have read all of which would have occupied the entire day. The Committee, it is stated, only directed that a letter from Dr. Austin Flint, Sr., should be read.

The above is not a correct statement of facts. I was, together with Dr. Austin Flint, a member of the Committee of Arrangements, and did not, therefore, occupy the same position with two hundred persons who may also have written letters, but who were outside of the Committee. I had, therefore, equal right with Dr. Flint. As a member of the Committee, unable to attend the Chicago meeting, I sent my letter addressed to both the Chairman and Secretary, waiving the fact that they had usurped their positions. I had an equal, if not a better right than Dr. Flint to express my views by letter. He was represented by a proxy. After this proxy took his seat in the Committee, Dr. Flint was, for the time being, not a member of the Committee. But, further, the proxy was there to step in as a permanent member of the Committee when Dr. Flint, in accordance with previous arrangement, stepped out. Possibly, as I was not connected with this or any other previously arranged programme, my letter was unimportant, and Dr. Flint's alone was accorded a reading. Had I occupied a like distinguished position in the eyes of the managers, or been as available for promotion from the ranks of the Committee to the highest office in the Congress, I might have been accorded equal rights with my illustrious friend.

Still, I am satisfied with my present humility, and would not exchange this for the highest office bestowed by the Committee.

No further rejoinder from the same source will induce me, Mr. Editor, to trespass again on your columns.

R. A. KINLOCH,
Member of Committee from South Carolina.

CHARLESTON, Nov. 7, 1885.

NEWS ITEMS.

WASHINGTON.

(From our Special Correspondent.)

CHOLERA IN SHANGHAI.—The U. S. Vice-Consul-General at Shanghai, China, informs the Department of State, under date of September 10, 1885, that at his re-

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quest Dr. Neill Macleod has furnished him with the following information:

"During the last week in August, the deaths from cholera in the English and American settlements are reported to have been 96 amongst the Chinese. The returns for September have not been sent in, but I think the number is not probably less. The deaths among foreigners have not yet, I believe, exceeded 10. We have no means of determining the number of cases."

The Vice-Consul is advised by the Superintendent of Police, and by the Chinese officials, that in the native (old) city of Shanghai and its suburbs, with an estimated population of over 300,000, which is not referred to in Dr. Macleod's communication, the cases of cholera are exceedingly numerous, but no statistics are obtainable.

He says the walled city of Shanghai is the filthiest city he has ever visited. Old residents of China have informed him, that it is considered to be at the head of the list of Chinese cities, so far as filth and vile smells are concerned. A few days ago, he says, he made a tour of inspection through the city, and found vegetable and animal garbage festering on every hand. All human excrement is carried out of the city, to be used in fertilizing the fields, and as it is carried through the streets in open buckets, the air is constantly charged with vile odors, and besides this, numerous public latrines are scattered about, and the temporary occupants are in full view of passers-by. The latrines are rudely constructed, and no attempt made to disinfect them, and there is no doubt that they are the direct cause of a great amount of sickness. The streets are narrow, and the dwellings low and damp. The Vice-Consul-General thinks the only wonder is, that the mortality is not greater than it is.

MONTREAL.

(*From our Special Correspondent.*)

THE SMALLPOX.—During the last few days the daily mortality from this disease has fallen from 50 to 40. The isolation committee is doing good work and all houses and tenements where smallpox cases are found are carefully guarded. Where isolation is impossible, the patients are removed to hospitals. The patients as a rule go quietly, but if they refuse, force is used. A few days ago it took the Mayor and fifty policemen to remove two cases from a house defended by a father and son with shotguns and revolvers; the cases were successfully removed without any mishap. For this action the Mayor was much abused by the French papers. The new hospital is already full and more hospital accomodation is being provided; vaccination is still hanging fire, and the great mass of people in the east end still remain unvaccinated, preferring death from smallpox to dishonor from vaccination.

The deaths during October in Montreal and suburbs have been 1630 in number; of these 1599 were Catholics and 31 Protestants. The Catholics were mainly French, the mortality amongst the Irish Catholics (who are well protected by vaccination) not being more than amongst the Protestants. Since the commencement of the epidemic there have been 2641 deaths from smallpox.

A GERMAN OPINION OF THE CONGRESS IMBROGLIO.—It is known that the invitation of the American medical profession, extended by Dr. Billings, Surgeon U. S. Army, at Copenhagen, last year, was accepted. The Committee of Organization consisted of Drs. Austin Flint, of New York, President; J. S. Billings, of Washington, Secretary-General; I. Minis Hays, of Philadelphia; Lewis A. Sayre, of New York; Christopher Johnston, of Baltimore; George Englemann, of St. Louis; A. Jacobi, of New York; and other prominent members of the medical profession in the United States. These gentlemen set about their work with great zeal, put in motion the organization extremely difficult to arrange, named the several secretaries and other officers, and distributed in April of the present year a pamphlet in which the rules regulating the organization of the Congress and all facts of special interest relative to it were set forth. From this the impression was gained that the profession in its entirety would be represented in the Congress, as a national body, which should include all medical societies and bodies with common and special aims.

Now, while the gentlemen composing the original Committee were chosen from the American Medical Association and entrusted with proper powers, it happened at the meeting of this Association, held this year at New Orleans, certain intriguers and office-seekers, at the head of which was Dr. Shoemaker, of Philadelphia, set aside the regulations adopted by the original Committee, and named a new Committee, more numerous and containing a part of the old Committee, and representative only in a territorial point of view. In order to understand this step, it must be recognized that the American Medical Association, especially those who in it exercise the greatest authority, lay especial stress upon geographical representation—*i. e.*, that on all special occasions each of the separate States shall have equal representation; and, further, that the American profession is divided into two great parties, representing, respectively, the old and the new Code of Ethics, which differ, especially in the regulations relative to irregular practitioners, the old code maintaining a strict, the new a lax, stand toward them.

As the original Committee did not conform their action to the demands for territorial representation, or act wholly in the interests of the old and stricter code, it came to pass, through the skilful use of both these levers, that the above step was taken—*i. e.*, the organization of a new Committee. Naturally, the old Committee resigned.

It has been repeatedly said, and we, ourselves, hold the opinion, that scarcely a prominent member of the German profession can be found who would be willing to go to America to sit under the presidency of Dr. Shoemaker, and participate in a disintegrated and destroyed Congress. The old Committee, part of which is personally known to and respected by us, has our entire support. If we, hitherto, have refrained from noticing this family embroglio, it was in the hope it would finally be righted in a manner satisfactory to all.

Indeed, even now it does not seem too late for this to be accomplished. Next spring the American Medical Association again meets. Let it do so with the understanding that it is no disgrace, and never too late, to recognize and rectify a wrong, and to bestow upon the original Committee a vote of confidence, and restore them to authority. We are convinced from the high

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position and zeal of these gentlemen, that they would rise above the wrong done to them; but, on the other hand, we have every reason to assume that under the existing conditions the Congress will be a total failure.—*Berliner klin. Wochenschrift*, October 26, 1885.

AN ENGLISH OPINION OF THE CONGRESS CONTROVERSY.—Those of our English readers who have followed with painful interest the course of the struggle now in progress in America with regard to the Washington Medical Congress of 1877, will be amused to hear that the new executive committee of the Congress have resolved that their actions "*are final, not being subject to revision, amendment, or alteration by either the Committee of Arrangements or the American Medical Association.*" The astuteness of that resolution is as remarkable as the irony of it is delicious. If the original committee had only been wise enough, before the event, to have adopted such a decision, there would have been none of the dissensions which have so terribly distracted the American profession. The resolution is at once a slap in the face to the American Medical Association and a sneer at the original committee of eight, as if to say, "Why, what idiots you were, not to have thought of this!" And yet it is at the same time a score to the original committee and its supporters in that it is a justification of their action in resenting the interference of the Association with their decisions.

Meanwhile we hear affairs are *in statu quo*. The resignation of Dr. Dalton, the Chairman of the Physiological Section, which has happened since we last wrote on the subject, leaves the organization of the Congress without a single really scientific representative if we except the Flints and Dr. N. S. Davis. If the meeting is held, the Sections of Anatomy, Physiology, and Pathology will not be attended by any of the American workers in those fields. There is, we fear, little hope now of an arrangement. All the prominent American men of science have withdrawn, and will not return unless very considerable concessions are made, of which there appears no hope.

The *Berliner klinishche Wochenschrift* this week roundly states that hardly a single "medical personage" will be found to undertake the voyage from Germany for the privilege of sitting under the presidency of Dr. Shoemaker. It makes, however, a strong appeal to the American Medical Association to approach the subject in a more wise and generous spirit when its next Spring assembly takes place, and to rearrange its propositions in such a manner that the services of the leaders who were nominated in the first instance may still be made available. In the absence of such a rearrangement, our Berlin contemporary expresses a decided opinion, which we can heartily endorse, that the Congress of 1887 will be foredoomed to dismal failure. The whole thing is a bad business. It is an awkward position, for it must be remembered that the Washington Congress will have to make arrangements for the succeeding meeting. Suppose Dr. Shoemaker and his friends decide that the Congress of 1890 shall be held in Texas.—*Medical Times and Gazette*, October 31, 1885.

HOME OPINION ON THE CONGRESS ORGANIZATION.—That the Association had full power to revise the work of its committee we feel assured. This prerogative still exists, notwithstanding the rather singular assumption by the Executive Committee of the Committee of Arrangements, that its action was final, "not subject to revision, amendment, or alteration, either by the Committee of Arrangements or the American Medical Association." We would quote from an editorial in the Association Journal of June 6th: "The idea that the powers and duties enjoined upon a committee of arrangements, appointed by a permanently organized association, are in the nature of *vested rights* by which such committee becomes an independent body, self-perpetuating, and responsible to no one, has not hitherto been widely entertained in this country." This action cannot have the support of the Committee of Arrangements, which still holds to the idea of its responsibility to the Association.—*Mississippi Valley Medical Monthly*.

Probably one most startling event in the whole history of this most miserably bungled affair is the resolution passed by the Executive Committee appointed by the Committee of Arrangements two months ago. We certainly admire this bold piece of policy on the part of the Executive Committee, but hardly find it consistent with the opinion which the American Medical Association obtained from Ex-Speaker Randall, and with which they sought to justify their action at New Orleans: ". . . The theory that a select committee, created by a body with certain defined powers and duties, gives any *vested rights*, so to speak, which place it above or beyond the power of the creating body to review or regulate, is one not only without precedent in parliamentary law, but is untenable on any ground of parliamentary principle."

Here we have a committee declaring itself to be irresponsible, a servant without a master. This combination calmly asserts that it is going to do the work, and that the Congress and profession generally will accept and approve of that work, whether they like it or not. Out in California we have had some experience of Vigilance Committees in troublous times, who were invested by the citizens with full power to use all means to quell the disturbance, and this is the only irresponsible committee known in this State. Possibly this Executive Committee is of that nature.—*Pacific Medical and Surgical Journal*.

HOW SMALLPOX HAS BEEN INTRODUCED INTO THE UNITED STATES FROM CANADA.—The Secretary of the State Board of Health of Michigan, in a circular letter to the Health Inspectors of Travel, says: About August 6, 1885, a French-Canadian family, consisting of the mother and six children, passed through Port Huron from Montreal to Marinette, Wisconsin. They met with no detention at Port Huron, or at any point through Michigan, Illinois, or Wisconsin, as it was before the present system of inspection was established. From this family resulted eighteen cases of smallpox, with four deaths. The outbreak was promptly suppressed by the health authorities at Marinette.

Another French family, named Picher, left their home near Montreal, September 22, 1885, were detained at Detroit, "examined, fumigated, and vaccinated." The family consisted of father, mother, and seven children. They passed Detroit, September 23d, and reached their destination near Coleman, in the Township of Peshtigo, Wisconsin, on the night of September 24th. About a

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week after their arrival in Wisconsin, four of the children were taken sick with smallpox, but it was not discovered until a large number had been exposed. I am informed by J. J. Sherman, M.D., health officer at Marinette, Wis., that "the vaccination at Detroit was complete and effective on three, and greatly modified the attack on the other four."

Dr. Sherman, writing October 30, 1885, in regard to these cases, says: "Of course it does the immigrant good to vaccinate, and no doubt prevents the spread of smallpox altogether in many cases, . . . only I do think that immigrants from infected districts should be held, when they have not been vaccinated or had smallpox until the vaccination gives evidence of working, or until it is morally certain that the disease is not in the incubative stage; and, if possible, notices forwarded to health officers of the towns to which they are going, that they may be kept under surveillance until all danger of contagion is passed."

THE INTERNATIONAL CONGRESS AND COLLECTIVE INVESTIGATION OF DISEASE.—The preliminaries for this investigation are, as announced from London, so far advanced, that inquiry lists will shortly be ready for transmission. These will again be collected at the close of 1886, and the materials put in such shape that the results of the investigations may be communicated to the next meeting of the International Medical Congress.

MEDICAL DISPENSARY SERVICE FOR THE INSANE POOR OF PHILADELPHIA.—At a recent meeting of the Managers of the Pennsylvania Hospital, it was determined to add to their Outpatient Department, on Spruce Street, near Ninth, a medical service for the purpose of furnishing advice and treatment to persons suffering from the early or incipient symptoms of insanity, but who may not require the custodial care of a hospital. Cases of chronic or established insanity will not be received.

The service is designed for the benefit of persons in indigent circumstances, and for the present will be rendered by the physicians of the Department for the Insane of the Pennsylvania Hospital. Dr. Henry M. Wetherill will be in attendance at the Outpatien Department on Monday and Friday of each week, at 3 P.M., during November and December, commencing November 2.

CINCINNATI COLLEGE OF MEDICINE AND SURGERY.—Dr. Charles E. Caldwell has been elected Lecturer on General Pathology in this institution.

OBITUARY RECORD.—DR. WILLIAM BENJAMIN CARPENTER. The death of this eminent English physiologist is announced by a cable from London last Tuesday.

Dr. Carpenter was born in Exeter, October 29, 1813. In 1834, yielding to the desire of his family that he should study medicine, he went to London, where he pursued his studies at University College and Middlesex Hospital, and there, while attending the lectures of Dr. Grant on comparative anatomy, he laid the foundation for his works on physiology, by which he is most widely known.

Passing his examination at the College of Surgeons and Apothecaries' Hall, he went, in 1835, to Edinburgh to pursue his professional studies, and while there was elected the first of the four annual Presidents of the Royal Medical Society. Shortly afterward he accepted the lecturership on medical jurisprudence in the British Medical School, and about this time he began to write his now universally known treatise on *General and Comparative Physiology*, the first edition of which appeared in 1838.

Dr. Carpenter's natural bent leading him rather to the scientific than to the practical aspects of medicine, he now resolved to devote himself wholly to the study of physiology, lecturing, private tuition, and writing, and henceforth he was known not only as a systematizer of the works of others, but as an independent, original, and scientific investigator.

Dr. Carpenter was at one time Editor of the *British and Foreign Medico-Chirurgical Review*, and contributed articles to that journal on a wide range of subjects.

Besides his treatise on physiology, Dr. Carpenter produced numerous other scientific works, among which are a study of the Australian and Philippine *Foraminifera*, discussions of the phenomena of mesmerism, hypnotism, and *The Microscope and its Revelations*.

Later in life he was occupied in investigations connected with the deep sea dredging expeditions.

Dr. Carpenter's death occurred as the result of an unfortunate accident, and was due to burns caused by the upsetting of a spirit lamp, while he was taking a vapor bath for rheumatism, to which he had long been subject.

NOTES AND QUERIES.

A LONG UMBILICAL CORD.

To the Editor of THE MEDICAL NEWS.

SIR: As a matter of perhaps some statistical interest, I wish to place upon record the measurement of an umbilical cord at full term, which exceeds in length any previous published contribution upon the subject of which I have any knowledge. It measured three feet and four inches, and, but for the fact that it encircled the child's neck twice and body once, I should probably have had a case of umbilical hernia to contend with. Respectfully,

A. H. GARNETT, M.D.

OSWEGO, KANSAS, Nov. 2, 1885.

CASE OF TOTAL ABSENCE OF VAGINA.

The case of total absence of vagina noticed in our issue of last week, page 515, was under the care of Dr. Joseph Eastman, of Indianapolis, Indiana, and the case is still under his observation.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, FROM NOVEMBER 3 TO NOVEMBER 9, 1885.

MCCLELLAN, ELY, *Major and Surgeon.*—Leave of absence granted in orders, Cavalry Depot, Jefferson Barracks, Missouri, October 30, is extended seven days.—*S. O. 254, A. G. O.*, November 4, 1885.

KANE, JNO. J., *Captain and Assistant Surgeon.*—Ordered for duty as Post Surgeon, Fort Ringgold, Texas.—*S. O. 141, Department of Texas*, November 4, 1885.

EBERT, A. G., *Captain and Assistant Surgeon.*—Ordered from Camp Grant, Riverside Park, New York City, to Fort Hamilton, New York Harbor, for duty.—*S. O. 237, Department of the East*, November 5, 1885.

BUSHNELL, G. E., *First Lieutenant and Assistant Surgeon.*—Assigned to duty at Camp Grant, Riverside Park, New York City.—*S. O. 237, Department of the East*, November 5, 1885.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLVII. SATURDAY, NOVEMBER 21, 1885. NO. 21.

ORIGINAL LECTURES.

AN UNUSUAL CAUSE OF CHRONIC LEAD POISONING.

A Clinical Lecture Delivered at the Pennsylvania Hospital, October 24, 1885.

BY ARTHUR V. MEIGS, M.D.,
PHYSICIAN TO THE HOSPITAL.

(Reported by Charles Baum, M.D.)

GENTLEMEN: As a clinical lecturer, I shall teach you most by showing you ordinary cases of disease, such as you will be called upon to treat when you become practising physicians, but occasionally there are in the wards of the hospital cases of rare disease or unusual phases of common ones, by showing you which I may perhaps impart to you as valuable information. Some of you may perhaps never meet with a case such as I shall now describe, but if you should, the information I shall impart to you may prove of value.

A week ago to-day I found in our waiting-room a man who wished to be admitted to the ward. I can perhaps best explain to you the method by which I arrived at the diagnosis in his case by telling you the impression his condition produced upon me when I first saw him: He was seated upon a bench looking very pale, and with an expression of great pain upon his face, and when I asked him what was the matter, he said he had violent pain in the abdomen. I then asked to see his tongue, and when he protruded it I noticed that the breath had a heavy, disagreeable odor. Something in his appearance having now aroused my suspicions in the right direction, I questioned him in regard to the condition of his bowels, and upon learning that he had had no passage for five days and had been constipated for some time past, it was only necessary for me to ask him to set his teeth together so that I might examine his gums and teeth to establish at once the diagnosis. There was upon the gums of both the upper and lower jaws the characteristic blue discoloration of lead poisoning. This blue discoloration, you must remember, is upon the gums and not upon the teeth, and you must never allow yourselves to be deceived into mistaking the blue color which the tartar upon the teeth of those who are not cleanly about their mouths often has, for the blue line of lead-poisoning. If there is ever any doubt in regard to the situation of a blue discoloration in the mouth, it is always readily dispelled by taking a matchstick or toothpick and scraping at the spot to see upon which surface it is situated, whether upon the teeth or gums, and once you have established that the blue line is upon the edges of the gums just at their junction with the teeth, there can be no doubt as to the nature of the disease with which you are dealing. Having discovered this line upon the gums, I was certain, without further inquiry into either the condition or occupation of the patient, that he was suffering with lead colic, for had he not its three most marked and constant symptoms—continued severe pain in the abdomen, obstinate constipation, and blue line upon the gums? I have already shown you this year a tinsmith who, I told you, I was satisfied was suffering with lead colic from the pain he had in the abdomen and constipation of the bowels, although there was no blue line upon the gums at all, and I was only enabled to make the diagnosis in his case from knowing that the nature of his occupation made him constantly handle lead, which you know is a large component part of solder.

Having so easily made the diagnosis, it next became a matter both of scientific interest and of importance to the patient that it should be discovered by what means the poison had been introduced into his system, for only by learning how he had been poisoned could he be warned against the danger in future. The man said he was a tailor, and had not done any other sort of work for a long time. This put me entirely at fault, especially when I found upon inquiry that nothing could be learned tending to show that his drinking-water was in any way contaminated, and as he strenuously denied using any leaden implements or handling the metal in any shape. Later I was told that Dr. H. C. Wood used to relate in his lectures at the University of Pennsylvania that he had attended sewing women suffering with lead poisoning contracted from biting thread which it was found was weighted with sugar of lead. Upon asking at a large tailor's establishment in the city, I was told that much of the silk used by them is treated with sugar of lead to give it the desired weight, and then Dr. Penrose, the resident physician, found in the *Half-Yearly Abstract*, for 1866, July to December, an article by M. Chevallier, giving an account of how thread was treated with lead, and of how women using it suffered from lead poisoning. I had intended to obtain some of the thread with which this man worked, and yesterday he was allowed to go out of the hospital to procure some of it for us, but he has not returned. I shall, therefore, be unable to do what would have been most satisfactory, examine the thread and demonstrate its containing lead. The cause of his attack of lead colic has been, however, sufficiently made clear to you from what I have told you; that the disease has been produced in the same way before from the use of thread which had been treated with sugar of lead.

The prognosis in this affection is almost always favorable, as I have already told you when I previously had occasion to show you cases of lead poisoning this autumn. Very few persons die of the effects of any of the forms of chronic lead poisoning directly, except from the encephalopathia.

With regard to treatment, the first indication to be met in a case of lead colic is to relieve the pain, which is often very severe, and this should be done before any effort is made to cure the constipation, which is also one of the most constant symptoms. To this end morphia should be given, and as much as from half a grain to

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two grains will often be required in the course of three or four hours, before the pain is controlled. This patient took a quarter of a grain, and after about an hour a second quarter; at the end of another hour, the pain being still severe, he was given another half grain, and then two or three hours later the same dose was repeated. After taking this quantity—one and one-half grains—his pain was quieted, and for the first time in several days he slept comfortably. The pain having been by this means alleviated, he was given half an ounce of Epsom salts to relieve his constipation, but this amount had to be given a second or third time before the bowels moved. The two most urgent symptoms having now been disposed of, it next became proper to administer some drug which would aid nature in eliminating the poison from the system, and this is best effected by the use of iodide of potassium, which was accordingly given in ten grain doses three times daily. Under this treatment—morphia to relieve the pain, Epsom salts for the constipation, and iodide of potassium to eliminate the poison, the patient had sufficiently recovered at the end of seven days to leave the hospital, ostensibly for the purpose of procuring for us some of the thread with which he had worked, for examination, but actually, for some reason best known to himself, not to return again.

ORIGINAL ARTICLES.

LYMPHATIC LEUKÆMIA IN CHILDHOOD.[1]

BY JOHN M. KEATING, M.D.,
VISITING OBSTETRICIAN TO THE PHILADELPHIA HOSPITAL, BLOCKLEY, ETC.

THIS disease is interesting on account of its clinical rarity and the infrequency with which it is mentioned in current literature. There is a uniformity of composition of healthy blood which is curious. This is brought about by that equilibrium which is so striking in organs regulating the production of waste.

The blood corpuscles which we are called upon to study, are:

1st. The red, of which there are floating in the plasma about 5,000,000 to the cubic millimetre. These are about $\frac{1}{3200}$ of an inch in diameter.

2d. The white, of a diameter of $\frac{1}{2500}$ of an inch, having the proportion of 1 to every 300 or 500 red.

3d. The nucleated red, found in the fœtus and infant, and disappearing about the third or fourth year of life. These may contain one or more nuclei in some instances protruding from the cell. They measure from $\frac{1}{1400}$ to $\frac{1}{2000}$ of an inch.

4th. The hæmatoblasts of Hayem—"small discoid, colorless corpuscles, normal constituents of healthy blood—in drawn blood, they aggregate in clumps known as Schultze's granule masses." As to the origin of red corpuscles, "they are developed from colorless corpuscles, the lymph cells, or leucocytes. The nucleated corpuscles of the embryo also aid in their development. These nucleated cells disappear early in childhood, and are then found only in the red marrow." It is Osler's opinion that "they apparently originate from colorless marrow cells, which gradually become more homogeneous and hæmoglobin develops in the protoplasm, the nucleus degenerates and disappears, when the cell has the appearance of an ordinary red disk." Possibly these nucleated cells may give birth to red cells by the process of budding. The relations of the cytogenetic organs to blood formation, have always been somewhat debatable ground; the present state of our knowledge may be formulated about as follows: "The spleen certainly takes part in the development of colorless corpuscles, but its participation in red blood formation seems doubtful, though the opinion prevails widely that the spleen is one of the important organs in the formation of red corpuscles. The evidence for this belief is of an exceedingly scanty nature.

"The lymphatic glands and adenoid tissues in other regions are the seat of constant production of colorless corpuscles, but of their relation to the red corpuscles there is the same lack of information as in the spleen."

Neumann and Bizzozero pointed out the fact that the red marrow appears to be the seat of blood formation. In the adult it is the only region in which embryonic or nucleated red cells are found. In the young, the marrow fills the long bones.

It is Osler's opinion, quoting from his recent admirable articles on this subject, that the evidence of the development of red corpuscles in the marrow rests upon the constant presence of nucleated cells infiltrated with hæmoglobin, and of their fission. In excessive hemorrhage, natural or induced, it appears to undergo active proliferation, and it is an interesting fact to notice the marvellous rapidity with which the red corpuscles are reproduced after hemorrhage. The amount of hæmoglobin in healthy blood, according to Preyer, is 13.45 grammes to 100. This relation is important for us to bear in mind, as it proves an index to treatment. The color test being used, I feel certain that before long it will be a matter of more than ordinary interest to the general practitioner when the means of applying the color test shall be generally adapted, as has been partly done already, to daily practice.

In the newborn, the blood is said to amount to one-tenth part by weight of the body. In the adult, one-twelfth to one-fourteenth. It may also be noted that it has been shown by Neumann that the liver in the embryo may be the seat of the formation of corpuscles, though in the adult it is the seat of their destruction.

Let us now take up the subject of anæmia in children. We will omit that caused by hemorrhage, by toxic agents, by mineral poisons, by miasm, by syphilis, in which we have an increase in the watery elements and a diminution in the albuminous, and consider that dependent upon disorder of the blood-making organs themselves, and here we meet with a most difficult problem. By the blood-making organs we understand the spleen, the lymphatic tissues, and the bone marrow, remembering, of course, that some of these tissues have also to do with blood destruction. We, however, definitely know that an increase in the cytogenetic tissues is associated with disturbances in blood formation. The organ undergoes a

[1] Read before the Obstetrical Society of Philadelphia, November 5, 1885.

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hyperplasia, particularly of its fibrous constituent, and the marrow of bone changes from normal appearance to one like spleen pulp. The blood of all patients suffering from anæmia presents a reduction in the number of red corpuscles. This is true, no matter whether the seat of the trouble is located in the spleen, the marrow of bones, or in the general lymph glands; the white cells may or may not be increased. The clinical features of a case of anæmia will be strikingly alike, let the cause be in any one of the blood-making organs; all the more important symptoms will be present. To quote once more, such common features would be "the progressive anæmia with its group of circulatory symptoms, the irregular febrile reaction, essential fever of anæmia, the absence of marked emaciation, the tendency to effusions of serum, the progressive debility, the recurrence of hemorrhages gastric and intestinal, gastric and intestinal disturbances, and the resistance to treatment."

These affections that have so many symptoms in common, are grouped as distinct diseases under the following headings, viz., Leukæmia, Hodgkin's disease (anæmia lymphatica), splenic anæmia, and idiopathic anæmia.

Leukæmia signifies a hyperplasia of the blood-making organs with anæmia and an increase in the colorless corpuscles. Of this form we have three varieties: the splenic, lymphatic, and medullary. Leukæmia is present at all ages; the youngest case recorded by Osler being an infant of eight months. The chief symptoms are, insidious onset, anæmic appearance, bleeding at the nose or other hemorrhages, frequent diarrhœa or other gastro-intestinal disturbance. The spleen is enlarged, gradually increasing in size from the onset, and finally it may interfere with the circulation, and cause difficulty of breathing by pressure. Late in the disease the liver is also enlarged. The lymph glands in most cases are affected, and sometimes slightly enlarged. The tonsils and follicles of the pharynx, are usually enlarged. The lymph glands of the intestines, and of the peritoneum, are always enlarged. Fever is present, and increases as the case progresses, and is usually of the remittent type. But the most important aid to differential diagnosis, is the microscopical examination of the blood. This I give in detail in the case that forms the basis of this paper.

I was called in consultation by Dr. J. W. Gadd, of this city, to see the child with him, in the latter part of last month, and the following notes by Dr. Gadd, have been given me:

Mamie McC., aged four years and five months, had measles when about two years old, and from which she recovered without complication or sequelæ. About August, 1884, the tissue surrounding the eye became much inflamed and swollen. The swelling increased so much that the eyelid could not be opened for several days. After continued poulticing an abscess formed and broke, discharging a quantity of pus, and continued to do so for a considerable time, but finally healed up with a small scar. The child never complained, yet was pale, and did not want to play as other children did. I believe this was due more to her disposition, than to the effect of any disease.

About midsummer there appeared a rash all over her body, very thick, and resembling the eruption of measles; as it matured, it was crowned by small white caps or heads. The epiderm soon came off in large patches. The child had no fever. As the eruption faded the mother observed purplish spots, like bruises, making their appearance. These were considered by the parents to be bruises due to falls. No attention was paid to her condition until September 28th, when I was called in the evening to arrest an epistaxis which had existed most of the day. I found the child lying on a sofa, though able to sit up, with blood slowly trickling from the nose; each nostril contained a large clot. The child appeared very anæmic with slight fever, yet did not complain of anything except weakness. The mother stated that the appetite had been very poor for some time past. The bleeding from the nose was very easily arrested by removing the clots, and packing each nostril with a strip of lint. I also gave the following internally:

℞.—Acid. gallic. . . . . gr. xxx.
Acid. sulph. dil. . . . ♏ xl.
Ext. ergot. fl. . . . . ♏ xxx.
Syrupi . . . . . f ℥j.
Aqua . . . . . q. s. ad f℥ij.—M.
Sig. Teaspoonful in water every hour. Also ordering her as much milk as she cared to take, with the precaution that she should sip it slowly.

Tuesday morning I saw her, and found her in the same condition, except that the epistaxis had been arrested. I thought it best not to remove the lint packing. It now being daylight, her mother called my attention to the bruise-like spots over her body. These were in size from that of a two-cent piece, to that of a fifty-cent piece, and two of them, situated one over each trochanter, were as large as silver dollars; with the exception of these two, they were all, I believe, situated over the soft parts, such as over the belly of a muscle, and varying in color according to age from a bluish-black to a greenish-yellow. She still had some fever, and her heart was more rapid in its action than normal; hence I gave her, in addition to the gallic acid and ergot mixture, the following:

℞.—Liq. potass. cit. . . . f ℥j.
Spts. æth. nit. . . . f ℥ij.
Tr. aconitæ rad. . . . gtt. xv.
Syr. limonis . . . . f ℥iv.
Aqua . . . . . q. s. ad f℥ij.—M.
Sig. Teaspoonful every two hours.

Wednesday morning I found her somewhat better, though still having slight fever; pulse 124 per minute, and moderately weak in character. I did not detect any abnormal heart sounds. I removed the lint packing without further bleeding, and with much relief to the patient. I then ordered tincture of digitalis in three drop doses, every three hours, and also the following:

℞.—Quin. sulph. . . . . gr. viij.
Tr. ferri citro-chlorid. . . f ℥j.
Syr. tolu . . . . . f ℥j.
Aqua . . . . . f ℥vij.—M.
Sig. Teaspoonful every three hours.

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Thursday I found the patient, to use her own language, well; evidently much better. Fever had entirely subsided, the heart's action remained abnormally rapid. The cervical glands were slightly enlarged, but no enlargement of the tonsils and apparently no inflammation of the fauces. Treatment was continued with the addition of more nourishing food, beef-tea, wine-whey, etc.

The child seemed so much better that I said it might come to my office the next morning instead of my going there. Later, in the same evening, she took a sudden change for the worse but I was not sent for until Friday morning. Now the patient was suffering from high fever, 104° F. in the axilla; pulse 134 per minute, compressible. The cervical glands much enlarged and very hard; the bowels had not been moved for twenty-four hours; the tonsils were but very slightly swollen; there were no patches in the throat. Thinking that possibly she was developing a malignant form of diphtheria, I at once put her on the calomel treatment until the bowels were moved, giving her three grains, repeated in two hours; and then two grains; the bowels were moved freely, and the calomel was stopped. I also gave suppositories of two and a half grains of quinine every two hours; also,

℞.—Liq. ammon. acet. . . . fʒj.
Spts. æth. nit. . . . . fʒij.
Syrupi . . . . . fʒiv.
Aqua . . . . . fʒij.—M.
Sig. Teaspoonful every two hours.

I continued the tincture of digitalis in five drop doses every three hours. I also applied hot flaxseed poultices to the enlarged glands, and at noon plenty of beef-tea and milk, but the child did not care for food and it was difficult to get her to take any nourishment. At midday I noticed for the first time, although I had carefully and frequently listened before, a systolic heart murmur. The temperature was but little affected during the night, and next morning (Saturday) at 7.30 A. M. I found it as high as ever, 104° F. in the axilla. Fearing that endocarditis had set in from the continuance of high fever and the heart murmur, I at once applied a mustard plaster to the pericardium, followed by a poultice, giving internally potassium iodide and ammonium carbonate, continuing the digitalis until noon, when I met Dr. J. M. Keating in consultation.

Physical signs showed, in addition to what has been mentioned, an enlargement of the spleen, yet there was no history of malaria. Dr. Keating did not think that endocarditis had set in, believing the murmur to be rather of a hæmic character, yet, as a stimulant to the heart, suggested the application of a blister; internally, very small doses of Basham's mixture every three hours, with the free use of alcohol, beef juice in small amount, etc. The temperature to be kept down to 102°, or lower, by means of the wet sheet. On examining a specimen of the urine which had just been passed, and the first that I had been able to obtain, I found it to be of sp. gr. 1016, of a light straw color, free from albumen and sugar. The child could not retain either medicine or beef juice. The nose again commenced to bleed, to prevent which I again plugged the nostrils. Soon large clots of coagulated milk were vomited, the result of having been given by half-cupfuls at a time, which was entirely contrary to my direction. Her stomach soon became settled, and she took brandy and crushed ice in small quantities. We wrapped her up in a wet sheet once, then poured cold water over her until the temperature came down to 101° in the axilla, which required about 35 minutes, she was then wrapped in a blanket. In two hours the temperature was again 104°. We again gave several of the wet packs during the afternoon and evening, and notwithstanding we were at the same time giving two and a half grains of quinine every hour by suppository, the same rise in temperature was observed after each. During the night she took her medicine regularly; alcohol and water and beef tea were also administered.

Sunday morning (the day of her death) I found her, to all appearance, bloodless; pulse rapid and small; respiration shallow and too frequent; temperature rising to 104° after the wet pack, as before. During Saturday night she had removed the packing from the nostrils, which allowed a slight oozing of blood, and, this having been swallowed, gave rise to vomiting of clotted blood; this continued, after the bleeding from the nose had been again checked, at intervals of ten to fifteen minutes, which gave rise to the belief that there was a slight hemorrhage into the stomach; these clots differing somewhat in form and color from those which I ascribed to the epistaxis. The heart became more rapid — 138 per minute—and the patient gradually sank. She died at 6.30 P. M. in great agony, giving two or three shrieks, which were quite loud, considering her weakened condition.

Dr. William Osler kindly examined for me a slide of blood, and reported as follows:

"*Red corpuscles* present no special alteration in size or shape. *Colorless corpuscles* greatly increased in number—fifty or sixty in each field of the No. 7 Hartneck. They present remarkable variations in size; many are small, not more than one-third the size of the longer forms; they resemble the smaller colorless cells which Virchow has noted to be present in cases of lymphatic leukæmia. Many of the cells have feeble, amœboid movements. *Nucleated red corpuscles* not observed. *Schultze's granule masses* (often abundant in leukæmia) scanty."

The relation of the increase in number of the colorless corpuscles above noted to the increase in size of the glands and cytogenetic tissue is, indeed, hard to solve. The increase in size and hyperplasia of the spleen in leukæmia and anæmia are histologically identical. We must remember that the view that colorless corpuscles change into red corpuscles is not fully established; hence, also, that it is not proven that the excess of colorless corpuscles is due to failure in the change to red ones. In such cases the prognosis, when the disease is detected at its incipiency, may be favorable under rigid treatment of fresh air and suitable diet, iron, quinine, and arsenic and salt bathing; but in marked cases that have existed for some time with advanced symptoms the result is fatal.

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SUPPOSED FRACTURE OF THE CORACOID PROCESS OF SCAPULA.[1]

BY ROBERT W. JOHNSON, M.D.,
OF BALTIMORE.

MOST observers, not familiar with the anatomy of the soft parts, would, on looking over the angles and projections of the skeleton, undoubtedly select the two hook-like processes of the scapula as especially exposed to fracture. Did you press them further and let them select the more frangible of the two, the coracoid process would probably be chosen because of its independent projection, and because of a quasi-constriction immediately posterior to the elevated ridge which gives attachment to the trapezoid ligament, while the acromion, bolstered as it is, by its junction with the clavicle, would indicate a strength which experience shows is fallacious. Should an anatomist, pure and simple, next have to decide the question, basing his conclusions merely on what he has found on dissection, and unbiassed by any surgical facts, I doubt whether he would place the coracoid fractures in so improbable, and, as some have it, impossible light as surgical writers of the present day.

"Fractures of the coracoid process are remarkably rare. I have seen but one decided instance," says Mr. Thos. Bryant.[2]

"This fracture is exceedingly rare."[3]

"The coracoid process is but seldom broken, there not being more than ten or twelve unequivocal cases of this accident recorded."[4]

"The coracoid process,[5] says Mr. Lizars, is said to be broken off, but this I question very much."

"The acromion and the coracoid processes[6] are occasionally broken off, the latter very rarely."

Druitt, Gant, Holmes, and others bear the same testimony. What is the secret of its immunity?

The deltoid muscle acts as a buffer to outside violence. The clavicular portion of the pectoralis major covers the front. The clavicle arches over a portion of it as a protecting roof, and often sacrifices itself to shield the coracoid.

Again, its curved contour fits to a certain extent the convex head of the humerus, from which it is separated by an elastic bursa and ligaments. It is further braced by the coraco-clavicular, coraco-acromial, and coraco-humeral ligaments, the short head of the biceps, coraco-brachialis, and pectoralis minor muscles. But before all these protective agencies, the mobility of the scapula itself may rank with its power of falling back on the muscular cushions which surround it when hard pressed by external violence.

Whatever be the cause or causes of infrequency, the fact remains that the coracoid process is but seldom broken, and that mostly by some serious injury, which has imperilled parts much more important.

As will be seen by the accompanying table, where the complication or concomitant injuries are mentioned, we find dislocation and fracture of humerus, dislocation of outer end of clavicle, fracture of base of skull, glenoid cavity, etc., all marking the injury as a very grave one, and the force used as excessive. There is but one case from muscular action alone, No. 18. Falls appear to be the most common immediate cause, while, of course, the coracoid is not exempt from the constitutional bone frailties that occur in syphilis, pregnancy, rheumatism, etc. Sex or age does not affect materially, since our list gives instances from childhood to threescore years and ten. Allen (*Human Anat.*, Sec. ii. p. 171) says: "The coracoid process acts as a check to the inward movements of the head of the humerus, and unless the process be broken, subclavicular dislocation can scarcely occur." He further adds, in regard to its development: "This process is homologous with the coracoid bone of batrachian reptiles and birds. As seen in these animals, the coracoid bone extends between the sternum and scapula very much after the manner of the clavicle in the human subject."

The diagnosis of this fracture is not so simple as a casual observer might suppose, for on looking at the table we find that most of the cases have been discovered by post-mortem examination. The severity of the accompanying injury, the fact that but little displacement occurs from the action of the pectoralis minor and short head of biceps, unless the rare rupture of the coraco-clavicular ligament also happens, and the ready way in which injuries about the shoulder-joint swell, all mask the separation of the coracoid until the scalpel of the pathologist discloses it. Crepitus, pain, and mobility are more to be depended on in life, especially if all the other bony parts of the shoulder yield negative results on examination

In regard to treatment, there is not much to be said. This silence, however, is not due to the results of treatment being ineffectual, a condition of affairs that brings out either a host of specifics in the hands of charlatans, or a few suggestions from the pens of real thinkers, but because the application of one or two anatomical facts, together with the requisite amount of common-sense, will effect many cures.

Place the divided bones in position, and keep them there if possible. This is best done by relaxing the biceps and coraco-brachialis muscles, by semiflexing the forearm, and relieving the tension on the pectoralis minor, by laying the forearm across the chest. The ligaments, if not ruptured, will be serviceable splints. A Velpeau bandage will maintain the parts at rest.

The following case is reported because it is believed to be a fracture of the coracoid process—a diagnosis made after careful examination, but not stated positively because of the rarity of the lesion, together with the fortunate recovery of the patient.

Mr. K., æt. 76 years, fell, striking his right shoulder against a projecting board. When first seen by me, through the kindness of my friend, Prof. Miltenberger, I found evidence of shock, the right arm was powerless, the shoulder somewhat swollen, and a contusion one and a half inches below the acromion, and slightly to the posterior side of the humerus. Movement was very painful, and occa-

[1] Read before the Clinical Society of Baltimore.
[2] Practice of Surgery, fourth edition, p. 872.
[3] Agnew's Surgery, vol. i. p. 876.
[4] Erichsen's Science and Art of Surgery, vol. i. p. 410.
[5] Hamilton on Fractures, seventh edition, p. 247.
[6] Clark's Manual of the Practice of Surgery.

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Table of Cases.

No.	Age.	Sex.	Cause.	Reporter.	Reference.	Complications.	Evidence.	Remarks.
1	15 yrs.	Female.	.....	Bryant,	Surgery 4th edit., p. 872.	.....	Crepitus and displacement.	
2	14 "	"	Fall.	Paule,	" " "	.....	Mobility and crepitus.	
3	Adult.	...a.	.....	Agnew, (Neal)	Surgery, vol. i. p. 876.	.....	Post-mortem.	Epiphysal? Ligamentous union.
4	"	.....	.....	Agnew, (Gibson)	" " "	.....	" "	
5	...	.....	.....	Hamilton, (Mussy)	On Fractures, p. 247.	Dislocation of humerus.	" "	
6	...	.....	.....	Hamilton, (Jackson)	" " "	Glenoid involved.	" "	Broken twice.
7	...	.....	.....	Bransby Cooper,	Edit. of Sir Astley Cooper on Fract. and Dislocat'n Amer. edition, p. 380.	Fract. acromion and humerus.	" "	
8	...	.....	.....	Arnott,	Fergusson's Surg., p. 231.	.....	" "	
9	...	.....	.....	South,	Lond. Med. and Chir. Rev., 1840, vol. xxxi., new series, p. 42.	Disloc. humerus, fract. clavicle, acromion, and olecranon.	" "	
10	...	.....	.....	Holmes,	Med. and Chir. Trans., vol. xli. p. 447.			
11	...	.....	.....	Duverney,	Malgaigne, Traité des Fract. et des Luxat., t. i. p. 512. Paris edit.	.....	Post-mortem.	
12	...	.....	.....	Boyer,	" " "			
13	...	.....	.....	Malgaigne,	" " "	.....	Post-mortem.	
14	...	.....	.....	"	" " "	.....	" "	
15	Adult.	Male.	Struck by edge of board.	Hamilton,	Loc. cit., p. 248.	Dislocation out. end of clavicle.	Preternatural mobility.	3 mos. old when discovered.
16	Child.	Female.	Fall on shoulder.	"	" p. 249.	" "	Mobility and crepitus.	
17	38 yrs.	Male.	Struck by iron rod on shoulder.	"	" "	Paralysis of arm, forearm, and hand.	Crepitus and displacement.	
18	...	.....	Muscular action.	Hulme,	Lancet, vol. ii. p. 737, 1873.			
19	...	.....	Injury to shoulder.	Agnew,	Surgery, vol. i. p. 876.	Dislocation of humerus.	Prominence of process.	Noticed one year after injury.
20	...	.....	Fall.	Flower,	Holmes's Surg. (Packard), vol. i. p. 851.	.....	Mobility of process and crepitus.	Indirect force.
21	...	.....	"	"	" " "			
22	...	.....	.....	Erichsen,	Science and Art of Surg., Amer. edit., 1818, vol. i. p. 410.	Fract. of glenoid cavity and base of acromion.	Post-mortem.	
23	35 yrs.	Male.	Fall.	Bennett,	Dublin Journ. Med. Sci., 1873, lvi. pp. 345-349.	Fract. of base of skull, disloc. of humerus.	" "	
24	32 "	Female.	"	Case,	Lancet, Lond., 1840-1, ii. p. 350.	Lacer. wound of forehead and cheek.	Crepitation.	
25	27 "	Male.	"	Huse, E. C.	Chicago Med. Journ. and Examiner, 1879, xxxix. p. 175.	.....	Crepitus.	Not confirmed by autopsy.
26	76 "	"	"	Smith, Alan P.	Personal communication.	.....	Crepitus, pain, soundness of other bones about the shoulder.	Bony union.
27	30 "	"	"	Johnson, R.W.	.....	Shock.	Crepitus, displacement, mobility of process.	Bony union.

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sional crepitus could be clearly felt when the arm was rotated. The head of the humerus was thrown a little forward and inward, but readily answered to all movements imparted at the elbow. Suspecting a fracture of the clavicle, and knowing the slight displacement occurring when the line of separation lies between the coracoid and trapezoid ligaments, I made a most careful examination of that bone, but found absolutely no crepitus nor any pain on pressure throughout its entire length. The acromion was intact, there was no break about the glenoid cavity. The head of the humerus responded to all movements of the shaft, and yet there was unmistakable bone crepitus; this, too, directly over the coracoid process, where the pain was most intense. One point I regret I omitted on account of the suffering that pressure over this process caused, and that was to examine as to the mobility of the coracoid. Had I done that and found it movable, the title of this paper would have been more definite.

A Velpeau bandage continued six weeks, followed by massage and the faradic current, were the means of restoring his arm to its former integrity. The coracoid process is now immovably fixed to the scapula.

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SOME USES OF COCAINE IN GYNECOLOGY.[1]

BY CHARLES HERMON THOMAS, M.D.,
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SELDOM does a new drug reach so sure a place in the confidence of the medical profession as that accorded to cocaine. I very early began its employment in ophthalmic practice, and soon extended its use to a variety of gynecological applications. The results obtained have been so satisfactory that I now never go to such a case without cocaine in my bag or pocket. After considerable experience in its use, I am convinced that it is quite as valuable in the latter case as in the conditions for which it was originally recommended. That it is a local anæsthetic when applied to mucous surfaces especially, is a familiar fact; but its property of reducing inflammation and engorgement of the same class of tissues is not so generally recognized, notwithstanding that it is a point of considerable practical importance. This action of the drug is readily verified by observing the marked paleness and shrinkage which follow in a few moments after its application to surfaces thus affected. While this condensation of tissue is to a considerable degree temporary, it seems to be of longer duration than the accompanying anæsthesia. In some cases the good results obtained by reducing hyperæmia in this manner, appear to be permanent. The common fear that it will fail to prevent pain may usually be overcome by placing a few drops of the solution on the tip of the patient's tongue, when the numbness produced seldom fails to induce full confidence in its efficacy. Cocaine hydrochlorate is the salt upon which my experience is based.[2] A four per cent. solution (gr. ijss to fʒj) in water acts well for most purposes, though a somewhat weaker or stronger one may sometimes be substituted with advantage. The addition of boracic acid in the pr. portion of gr. ij to the fʒj insures sterility of the solution.

When used, it should be applied with thoroughness, the parts being first freed from mucus, and some minutes allowed to elapse for its effects to develop; the time should be not less than two minutes, and in cases where considerable pain is to be anticipated, a strong solution, ten per cent. or more, may be employed, and the application repeated after an interval of two minutes, and in five minutes from the beginning the full effects of the drug may be looked for. That the anæsthesia produced by cocaine is complete, I have personally experienced, having made use of a four per cent. solution by injection into the nostrils previous to an application of the galvanic cautery to the nasal cavity. The cautery had been applied on a previous occasion without cocaine, and the pain was severe. With it, not the slightest pain was felt once, and I was conscious of the action of the cautery only by the hissing sound produced.

I have found it particularly valuable in certain cases of cervical endometritis in which, though there may be no erosion externally, and but little characteristic discharge, there is a state of extreme sensitiveness existing about the region of the internal os uteri, a probe or cotton easily bringing blood, and any application made to the part is liable to produce bleeding and severe radiating and ovarian pain. Cocaine carefully applied with the syringe or cotton-carrier, prevents the pain and bleeding, which would otherwise follow the necessary medicinal application. The swelling is thus also materially reduced, and the congestive or inflammatory stenosis which usually exists, is consequently for the time relieved, and applications to the part itself as well as to the entire endometrium, are greatly facilitated.

In urethral caruncle sensibility may be so destroyed, that the painful excrescences may be clipped off, and the site painlessly cauterized. Cocaine is also extremely useful in painful irritation and inflammation of the female urethral tract, and especially of the part just within the meatus; a condition attended with distress frequently referred to the bladder. Appropriate medication is painlessly made after its application, which may be conveniently made by means of the glass medicine dropper. As a means of preparation for the operation of stretching either the urethra or the cervix uteri, it is of unquestionable value.

To precede the application of caustic to chancre, it is also effective. I am informed by my friend Dr. Levis, who uses it extensively, and with great satisfaction, that in plastic operations upon the vagina where considerable surfaces are to be flayed, the cocaine anæsthesia is insufficient to prevent pain. It has been recommended in dysmenorrhœa, and there is good reason to believe from several reports which have been made, that it is capable of producing excellent results when applied to the os uteri, and to the cervical cavity, by means of a small cotton tampon. I tested it recently in a case of uterine colic, using it

[1] Read before the Obstetrical Society of Philadelphia, November 5, 1885.

[2] The price has recently been reduced to ten cents a grain or less.

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hypodermically, in two doses of one grain each, about half an hour apart, but without appreciable relief.

It has been tried internally, in doses of one grain or more in the vomiting of pregnancy, and has met with some favor, but in the only case within my own knowledge, it entirely failed.

In a case of painful vaginismus brought me by a practitioner from a neighboring city, the condition was quickly relieved by the local application of cocaine, and a complete examination was easily made, where, without its use, general anæsthesia would have been necessary. In a case of hyperæsthesia of the vagina with mild vaginismus, in which frequent local treatment was required, a suppository containing one grain of cocaine, introduced into the vagina a half hour before each treatment, entirely abolished the spasm, and rendered the introduction of the speculum easy and comparatively painless. Cocaine suppositories also produced excellent results in a case of rectal tenesmus, after opium had proved inefficient.

Cocaine has been recommended in operations for lacerated cervix, and for the crushing of stone in the bladder. I have not made use of it in either of these applications, but strongly believe in its value.

In one hyperæsthetic patient, in whom violent pain was developed on slight provocation, and who required local treatment of the cervix uteri and urethra, but who suffered so much from ordinary applications, that the local benefit was fully counterbalanced by the harm done nervously, it became necessary, on this account, to suspend treatment. After cessation for six months, treatment was resumed under cocaine, and it has since been in every way satisfactory, the pain formerly produced by applications to the cervix now being entirely absent. In the same patient painful irritability, with spasm of the bladder simulating cystitis, which was not entirely relieved by the opium suppository and other measures, yielded completely, and thus far permanently to a single injection of one grain of cocaine thrown into the bladder. The resumption of treatment in this instance was largely due to the enthusiastic approval of the husband, who had himself experienced complete relief from the injection of a drachm of the two per cent. solution into the deep urethra, for a violent urethrismus. In another instance, in a woman with irritable pile, red as a ripe strawberry, and who was suffering extreme discomfort, the pile shrank and turned pale under the cocaine application, and was then painted with tincture of iodine, with entire absence of pain.

MEDICAL PROGRESS.

TOXIC EFFECTS AFTER THE LOCAL USE OF COCAINE.—Experience in the use of cocaine as a local anæsthetic is beginning to prove the necessity of some degree of caution as to the quantity used, as several cases in which symptoms of cocaine poisoning have occurred have been up to the present time reported by various observers widely separated from one another. KNAPP described headache, vertigo, nausea, tottering gait, pallor of the skin, and cold sweat as the result of daily hypodermic injections of thirty-five drops of a four per cent. solution, with instillation of a few drops of the same solution in the conjunctival sac. G. MAYERHAUSEN, of Freiburg, after applying fifteen drops in two drop doses, at intervals of from five to eight minutes, to the eye of a little girl of twelve in whom the lachrymal secretion was so copious that he felt sure that half the application was lost, or that the total quantity of cocaine which was capable of producing any effect was probably not more than 0.005 gramme, found headache occur immediately after the operation, which was followed by irritation in throat and great nausea, with some temporary paralysis of the tongue, from which unpleasant effects she did not recover for twenty-four hours. PECK, on using cocaine on a lady on whom he performed tenotomy, observed a marked paleness come over her face.

REICH recently reported two cases in the *Russkaya Meditsina* in which similar toxic symptoms occurred, the one being a girl of ten years of age, the other a woman of sixty. In both cases a two per cent. solution was employed, and the quantity used did not in either exceed fifteen drops. STEVENS mentions a case in which faintness and cold perspiration were observed, but which he thinks were perhaps due to nervousness, as on a subsequent occasion this patient suffered no ill-effects from cocaine. He had, however, another case where seven or eight minims of a four per cent. solution produced spasm and loss of consciousness in a healthy male subject.

Quite recently an account has been published by Dr. BELLYARMINOFF, of St. Petersburg, of five cases in which the use of a four per cent. solution in various eye operations was followed by headache, vertigo, nausea, vomiting, delay in the healing of the corneal wound, and in some instances by traumatic keratitis. All the patients were elderly females, in a more or less emaciated condition. It was found that ice and morphia were ineffectual in arresting vomiting, and that the best treatment was wine. In some of the patients a subsequent operation was well borne by using a two per cent. solution and limiting the number of drops instilled. Dr. BELLYARMINOFF remarks that when cocaine is badly borne the patient is generally a female, and aged, or badly nourished. He thinks it safer to use a two per cent. than a four per cent. solution. Finally, it must be added that cocaine has been charged by KEYSER, of Philadelphia, with causing a tendency to panophthalmitis after cataract operations, he having found this serious complication occur in three cases out of seven in which he used the drug.—*The Lancet*, November 7, 1885.

THE REGENERATION OF BONE SUBSEQUENT TO TREPANATION.—V. MARTIN, after a study of the results of others and by his own experimental investigation, reaches the following conclusions relative to the regeneration of bone subsequent to the operation of trephining:

1. In young animals the newly formed osseous tissue takes its origin both from the medullary cavity limited by the circumference of the trephined bone, under the form of osseous centripetal tracts, and from the external surface of the dura mater under the form of osseous nuclei, which tend to unite with the former.

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In old animals, a thinning of the bony margin occurs, from loss of substance, which is found full of dense and fibrous tissue.

2. The pericranium does not contribute, or only to an extent not appreciable, to the reparation of the bone.

3. The vitality and the consequent complete adhesion of osseous disks introduced and placed in position, is assured at all times when suppuration does not ensue, and this when moderate may not prevent a partial growth, of greater or less extent.—*Rivista Internazionale di Medicine e Chirurgia*, October, 1885.

DECOCTION OF LEMON IN THE TREATMENT OF GONORRHŒA.—MANNINO, in the *Annales de Syphiligraphie*, recommends the decoction of lemon in the treatment of gonorrhœa, holding it to be the best parasiticide of the gonococcus. His observations are conclusive, though not numerous. The remedy may be applied during the acute stage and but a very few days elapse until the condition begins to improve.

The decoction should be prepared with three good lemons, neither too green, nor over-ripe, cut in small pieces and put in about ten ounces of water, contained in an earthen vessel. Gentle heat should be applied until one-third of the quantity remains, the solid portion rejected, and the remainder used for injection.

The number of injections should be from three to four daily and only a fresh preparation used, a new decoction being made every two days.—*Revue Médicale*, October 24, 1885.

CASE OF ULCERATIVE ENDOCARDITIS WITH EMBOLISM IN THE MOTOR PORTION OF THE LEFT INTERNAL CAPSULE.—E. PERZICCHETTI (*Gazzetta degli Ospitali*, No. 51, 1885) records the case of a patient who for twenty years had been a sufferer from intermittent fever. Becoming suddenly ill with fever and chill, for two days he was unable to work. Shortly afterward he was again attacked with fever, and going to a hospital, he was placed under treatment for malaria. The spleen was much enlarged, owing to the duration of the disease, and in a few days, his condition in the meanwhile failing to improve, complete motor and sensory paralysis of the right arm and leg supervened. The heart was found hypertrophied and an aortic diastolic murmur easily recognized, from all of which diagnosis of ulcerative endocarditis with cerebral embolism was made.

Death occurred in a few days, and post-mortem examination made by Prof. Marchiafava, revealed the presence of a focus of softening, the size of a bean in the posterior portion of the left internal capsule and the neighboring portion of the optic thalamus. The arteries of the brain were normal and permeable.

The left leaflet of the aortic valves was found covered with soft granulations and fibrinous clots, and the spleen and right kidney contained hemorrhagic infarcts.

Dr. Perzicchetti considers it remarkable that the embolism did not occur in the arteria fossæ Sylvii, or in the arteria lenticolo-optica.—*Centralblatt für klin. Medicine*, October 24, 1885.

PERIOSTEUM GRAFTING.—DR. C. M. TRUEHEART reports a case of reproduction of two and three-fourths inches of the clavicle in the human subject, by grafting with periosteum and with thin laminæ of bone, covered by its periosteum taken from a dog. The patient on whom the grafting was performed was a young man aged twenty-two, who had had about three and a half inches of the central portion of the clavicle shot away, together with an extensive mass of the adjacent soft tissues.

Measures taken to secure early union were ineffectual, and when, after six or seven weeks, examination revealed no prospect of union, either osseous or ligamentous, it was decided to resort to periosteal grafting. As a preliminary step, all new tissue in the tract of the injury was removed by the scissors and fuming nitric acid, and an excavation thus made three-fourths of an inch deep, about an inch wide, and two and three-fourths inches between the nearest projection of the end of the fractured bone.

The fragments of the clavicle were maintained in position by the axillary pad, etc., and healthy granulation having been obtained, small pieces of periosteum, the size of a large flaxseed, were placed upon the ends of the bones and into the wound, which was shortly covered with perforated oil-silk, covered with a compress of picked lint, moistened in a two per cent. carbolic solution. On the fifth day, seven or eight of the grafts were found to be taking.

In the course of a month three successive graftings were made, cicatrization of the edges of the wound being in the meanwhile retarded by cauterization.

Two months after the grafting the entire gap, which had existed in the clavicle, was filled up with a tissue possessing the characteristics of bone as to hardness, inflexibility, and perfect performance of function of giving support to the heretofore dropping shoulder, there being no appreciable difference in the length of the two clavicles.

At the present time the bone remains the same, with the exception of some contraction in its transverse diameter, and an irregularity caused by the angular union of a fracture, the result of a severe fall occurring some months ago.—*The Medical Record*, Oct. 3, 1885.

TRICHLORACETIC ACID: A NEW DISINFECTANT.—FILIPPOREITCH, of Odessa, adds another to the long list of antiseptics. The substance is known as trichloracetic acid, and, according to its introducer, is an active antiseptic, even in a two per cent. solution. In a strength of from one to two per cent. it destroys all organic life; in weaker solutions of from one to one-half per cent., it does not hinder the development of ferments, or of mould, but arrests that of bacteria—micrococci. According to Filipporeitch, the rank of trichloracetic acid among the disinfectants is the third place, corrosive sublimate and carbolic acid alone being superior to it, while chloride of zinc, boracic acid, and potassium permanganate are inferior to it.

Trichloracetic acid is a crystalline substance, easily soluble in water or alcohol, of pleasant odor, and coagulates albumen freely.

In concentrated solution it is caustic. Diluted it provokes hypersecretion of the saliva, and destroys completely its power as a salivary ferment.

As a therapeutic agent, it is an excellent remedy in

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erysipelas, in cutaneous excoriations which appear as a result of œdema in the lower extremities, in renal and cardiac disease, and in syphilitic ulcers, for the treatment of which it is not inferior to iodoform.

As a lotion, it is useful also in muguet.—*Gazzetta degli Ospitali*, October 25, 1885.

THE OCCURRENCE OF ABNORMAL QUANTITIES OF FREE HYDROCHLORIC ACID IN GASTRIC CRISES OF A TABETIC, WITH REFERENCE TO THE QUESTION OF NERVOUS INFLUENCE UPON THE SECRETION OF THE GASTRIC JUICE.—SAHLI (*Correspondenzblatt für Schweizerische Aerzte*, 1885) records some interesting observations on the case of a tabetic, which make it probable that the secretion of the physiological gastric juice, similar to the cardialgic pains occurring as a result of pathological changes in the spinal cord, are directly due to spinal influences, and are not of reflex peripheral origin.

He found in the vomit of a tabetic with severe gastric crises, a quantity of hydrochloric acid much above normal, and the same condition persisted even if the patient remained twelve hours entirely without food. The gastric crises then became so severe that almost constant vomiting existed, and examination showed the matter vomited to consist of pure gastric juice with a slight admixture of salivary secretion.

The stomach, under ordinary conditions, produces no acid except during digestion, and the phenomena here noted allow no other conclusion to be drawn than that the hypersecretion of the gastric juice is to be attributed directly to pathological changes in the spinal cord.—*Deutsche med. Wochenschrift*, October 15, 1885.

THERAPEUTIC VALUE OF THALLIN AND ANTIPYRIN.—The powerlessness of antipyretic agents to modify the actual course of continued fevers or to shorten their mean duration is, we believe, admitted by the large majority of clinical physicians. M. Jaccoud has communicated to the Académie de Médecine the results of a clinical investigation into the antithermic effects of thallin and antipyrin. The medicament has been administered by him in a systematic manner to reduce the pyrexia of typhoid fever, tuberculosis, and pneumonia. It is asserted that no other substance, given in such small doses, produces so marked an effect on the temperature as thallin. The nature of the disease appears to exert some influence on the duration of the antipyretic effect, which was most prolonged in cases of tuberculosis. Hardly, however, does the thermometer reach its lowest register before the temperature begins to rise again. When the temperature begins to fall copious sweats commence, and are the more abundant as the descent of temperature is more pronounced. The perspiration ceases when the temperature begins to rise. Thallin should be cautiously administered, since there is sometimes much danger of collapse setting in. Occasionally the administration of thallin, as with antipyrin, is attended with the appearance of a cutaneous eruption. As a rule, the eruption takes the form of papulous erythemata, which are at first minute, but gradually acquire larger dimensions. This erythema usually commences to appear on the internal aspects of the knees, and spreads afterwards on the extensor surfaces of the limb. So far as is at present known, the rash has not been noticed on the face. The average duration of the eruption is three days, but it may last two days longer. This complication is much more frequent with antipyrin than thallin. As the result of his clinical investigations, M. Jaccoud finds that thallin is a far more powerful antipyretic than antipyrin, but he asks the pertinent question whether it is useful to employ these medicaments. It appears that both prevent the axillary temperature from reaching its usual height for a certain time, but neither has any certain influence over the central temperature of the body, which remains at its usual height, even if it be not augmented. The peripheral cooling does not benefit or relieve the distress of the patient, but rather weakens him. The effects, indeed, are of an illusory nature. M. Jaccoud finishes by saying that these agents cannot be regarded as constituting real aquisitions to medical therapeutics.—*The Lancet*, November 7, 1885.

HYDATID TUMOR OF THE THYROID BODY.—DR. MEINERT, of Dresden, reports the case of a girl aged fourteen, in whom a swelling of the thyroid body for the last few months had occasioned great difficulty in breathing, during labor or in ascending steps.

The remaining members of the family were healthy, and no goitre had ever existed in them. When about four years of age, when convalescent from typhoid fever, the neck of the patient had been lanced for abscess of the parotid (?), and the tumor first made its appearance a few days after. Until eight years of age, the swelling increased uniformly, continuing to grow until it reached its present size, that of a large orange, and situated almost in the median line.

On account of absence of fluctuation, the growth was at first considered to be scrofulous. Treatment with injections of alcohol was first resorted to, and the slight resistance to the introduction of the needle at once attracted attention.

Exploratory puncture gave exit to a thin watery fluid, absolutely colorless, a result which was entirely unexpected, having never been confirmed in previous operations upon strumous conditions of the gland.

Consultation being held, incision was recommended, and being made, a pure white cyst rushed from the wound *in toto*. No scolices or daughter cysts, however, were found. A drain was introduced, and in three weeks the wound was healed.

The origin of the cyst is supposed to be traceable to the presence of a family dog, which was the constant playmate of the child, the tænia having been introduced into the wound made to relieve the abscess, occurring subsequent to the attack of typhoid fever.

The case is probably the first recorded instance of hydatid tumor of the thyroid body.—*Centralblatt für Chirurgie*, 1885, No. 24.

A CASE OF DISLOCATION OF THE FIRST CERVICAL VERTEBRA; RECOVERY.—DR. R. H. CARTER reports the case of a sailor who fell from the rigging of his vessel, a distance of about twenty-five feet, striking the back of his neck or head on a rope eight or ten feet above water. When he struck the water he had a slight convulsion and lay motionless. Examination showed the occiput

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drawn well back and down as far as possible, the chin projecting forward but not raised.

Pressure in the furrow behind the occiput was unendurable, producing great pain and a general tetanic condition.

The symptoms resembled those of strychnia poisoning, save that the face was unaffected. The left arm was blue, cold, sweating profusely, rigid, and absolutely powerless. The right arm was powerless, but less rigid than the left.

The legs were not paralyzed but rigid and clumsy. Sensibility was at first present, but later was lost, and the patient was unable to swallow even his saliva.

Every attempt to bring the head forward produced unconsciousness, during which he was flaccid; on recovery, there was a succession of spasms, the extensor muscles being very rigid.

The finger being introduced into the pharynx forward, displacement of a vertebra was discovered at its upper border, and diagnosis of displacement of the first cervical vertebra on the second was made.

A full dose of chloral having been administered by enema, the head was strongly lifted and slightly extended and rocked, by an assistant, while Dr. Carter made pressure with his thumb upon the projection of the pharynx. After manipulation lasting from one to two minutes, the projection yielded and the head came into position. The patient was able to swallow immediately and within two days the general symptoms resulting from the fall had disappeared, except the vasomotor derangement in the left arm, which in a measure was persistent sixteen days after the accident. — *The Medical Record*, September 5, 1885.

ARTHRITIS OF THE OSSICULA OF THE EARS; THE USE OF IODIZED FUMIGATIONS IN VARIOUS AUDITORY AFFECTIONS. — M. NOEL GUÉNEAU DE MUSSY, in the last volume of his clinical lectures, devotes some time to the study of a form of deafness produced by arthritis of the auditory ossicles. Such deafness is peculiar in the fact that under excitation and shock to the ear, it diminishes. Thus the noise of a carriage, locomotive, or a very sharp sound, may momentarily reëstablish the sense of hearing in those persons who ordinarily hear almost nothing.

The form of this affection which accompanies gout, has a great tendency to become chronic, and cause complete loss of hearing. Care, however, enables the affection to be treated with a certain degree of success, and every auditory congestion and cold should be avoided.

At the end of a few days from the beginning of the symptoms, resort should be had to iodine fumigation by placing in the meatus a plug of iodized cotton enveloped in wadding, care being taken that the thickest portion of the plug corresponds to the opening of the external ear.

At the end of from 24 to 36 hours the plug should be renewed.

The same process may be adopted in the treatment of parenchymatous metritis, or other affections where the use of iodine is desirable. In the last-named affection, M. de Mussy has obtained notable decrease of the uterine engorgement.

In women disposed to hemorrhage the remedy is contraindicated, as favoring its occurrence. — *L'Abeille Médicale*, October 26, 1885.

PARALYSIS OF THE RECURRENT LARYNGEAL NERVE IN CHRONIC LUNG DISEASE. — BÄUMLER, in the *Deutsche Archiv für klin. Medicin*, Bd. xxxvii. Hft. 3 und 4, reports some observations in which paralysis of the recurrent laryngeal nerve occurred, as a result of a chronic inflammatory condition of the lungs occasioned by inhalation of dust, and attended with extensive formation of new tissue.

In these cases there was chronic indurative neuritis of this nerve, which was the result either of chronically inflamed bronchial glands in its neighborhood, or of inflammation derived from the nutrient bloodvessels.

In the first case, that of a miller, aged 61 years, in whom the cause of hoarseness was recognized by the laryngoscope to be a left sided recurrent paralysis, post-mortem examination showed slaty induration of the apices of both lungs, and overgrowth of the left recurrent laryngeal beyond the point at which it turns round the aorta, by a very firm, densely pigmented bronchial gland.

In a second case, post-mortem examination revealed the presence of callous induration, and bronchiectatic cavities in the apices of both lungs, together with true cirrhosis of the left recurrent nerve at its point of origin from the vagus. In this case there was present an easily recognized arteritis obliterans in the vessels in the territory of the diseased nerve. — *Centralblatt für klin. Med.*, October 17, 1885.

THE TREATMENT OF RACHITIS BY PHOSPHORUS. — GRIEBSCH, *Jahrbuch für Kinderheilkunde*, 1885, Bd. xxiii. Hft. 1 und 2, reports forty-one cases of rachitis treated with phosphorus according to the prescription of Kassowitz, *i. e.*, in the form of an emulsion, and in most instances with accompanying salt baths.

In four cases cure resulted after the use of from one-sixth to two-thirds of a grain of phosphorus. In eleven cases the improvement was marked, in eight insignificant, in twelve nil, and in six the condition became worse.

Of the special manifestations of the disease, the following is noted:

Cranial rachitis occurred in forty-one cases. In seventeen, no change was noted; in nineteen, improvement; in one, the condition in a short time was aggravated.

In rachitis of the ribs and lower extremities, the treatment was without result.

Kyphosis existed in ten cases, and was benefited in three instances, continued in six, and grew worse in one. The weakness of the lower extremities, as well as the general debility, was uninfluenced in seventeen cases, while in the remainder the results were such as, in the opinion of the author, might easily have been accomplished by other treatment.

In view of the results obtained, Dr. Griebsch concludes that phosphorus is of but small value in the treatment of rachitis, and cannot be considered as a specific, and even questions whether, as a remedy, it is

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sufficiently safe to be used without caution.—*Centralblatt für klin. Medicin*, October 17, 1885.

HABITUAL ABORTION DUE TO RENAL DISEASE OF THE MOTHER.—DR. FEHLING of Stuttgart, calls attention to the fact hitherto unrecognized, that renal disease in the mother may give rise to habitual abortion, and cites the history of several cases in proof of the correctness of his view.

The first case related was that of a woman who aborted six times in succession. Each time, about the fifth or sixth month of pregnancy, œdema of the entire body ensued, and albumen was abundant in the urine, miscarriage occurred about eight weeks subsequent to the symptoms of the death of the fœtus. All the placentæ were small and atrophied and the decidua thickened. Syphilitic remedies were prescribed in vain by the family physician.

In a second case, about the middle of pregnancy, symptoms of the death of the fœtus occurred, concomitantly with the presence of an abundance of albumen in the urine. This diminished under treatment, but abortion occurred nevertheless, the fœtus being mummified. After the accident the albumen disappeared from the urine. A third and fouth case, likewise recorded, exhibited similar symptoms, abortion occurring in each, and in one instance the nephritis being first recognized by the ophthalmoscope.

Fehling's observation is interesting, as being the first to recognize renal disease as a causal agency in the production of abortion.—*Centralblatt für Gynäkologie*, October 10, 1885.

EXPERIMENTS ON THE VITALITY OF THE BACILLUS OF PHTHISIS.—PROFESSOR G. SORMANI and DR. E. BRUGNATELLI, of Pavia, have recently instituted a great variety of carefully conducted experiments to determine the action of various chemical reagents on the vitality of the bacillus of tubercle. These experiments are embodied in a pamphlet lately published, entitled "Ricerche Sperimentali sui Neutralizzanti del Bacillo Tubercolare."

The sputa of undoubtedly phthisical cases were mixed with certain medicaments, thirty-six in number. A portion of each mixture was injected either into the subcutaneous cellular tissue or into the peritoneal cavity of numerous guinea-pigs. The effects were carefully noted, and the animals subjected to a rigorous post-mortem examination. Of the medicaments used, the following were found to exert a strong neutralizing effect—in fact, in most cases the animals retained their full health, no trace of tubercular deposit being discovered on examination after they had been killed. The neutralizing power of the medicaments was found to stand in the following order, beginning with the least active: Lactic acid, camphoric acid (a saturated solution), camphor (a saturated alcoholic solution), bromide of ethyl, naphthol β, turpentine, chloride of palladium, creasote, naphthol α, phenic acid, and bichloride of mercury. Professor Sormani is still continuing his experiments, and one in particular he has made at the suggestion of Dr. Hassall. The sputa were dried at a low temperature, and were then mixed with olive oil, which was allowed to be in contact with the powder for some time until it had become well saturated with the oil. This experiment was undertaken in the belief that the vitality of the bacillus would be impaired by the exosmotic action set up by contact with the oil. Dr. Sormani writes as the result of the experiment: "I find an action of attenuation in which the bacillus by preference is multiplied in the lymphatic glands, and not in the viscera."—*The Lancet*, November 7, 1885.

THE VESICATING PROPERTIES OF METHYL IODIDE.—DR. ROBERT KIRK, in discussing the merits of methyl iodide as a vesicating agent, concludes as follows:

From the preceding statement it will be observed that the iodides of both ethyl and methyl are more powerful agents than the strong tincture of iodine already mentioned, and which Dr. Churchill considered the best of all applications to the cervix uteri. As distinguished from most other agents which are applied to the cervix or the interior of the uterus, iodine is characterized by its tendency to produce a serous instead of a plastic exudation, but in this respect it is much surpassed by its methyl and ethyl compounds. These circumstances point to the two latter bodies as peculiarly applicable where such effects of iodine are deemed desirable; and I have found the application of methyl iodide to the cervix have a remarkable effect in relieving pain in some forms of uterine disease. For milder effects and for application to the interior of the uterus the ethyl compound is an excellent agent. The effect of this body applied on a Playfair's probe to the fundus, and retained there one minute, is often remarkable. A few days afterwards the cervix has generally the soft feel and even the somewhat purplish tinge of the cervix of pregnancy. The cervical canal will frequently admit a sound which could not previously be passed; while pain is almost invariably relieved.—*The Lancet*, October 24, 1885.

NEW LOCAL TREATMENT OF ECZEMA AND OTHER CUTANEOUS DISEASES.—DR. GÉCÉ has recently made trial of the local treatment of eczema by ichthyol applied by means of a thin dressing of some sufficiently strong, but pliable substance, acting as an artificial epiderm, and at the same time combining medicinal treatment with the advantage of being able to be applied by the patient.

The dressing adheres without the use of a bandage, and is applied by simply moistening with warm water, and needs only to be renewed every three or four days.

In acute eczema and chronic eczema, especially that of the lower limbs, where the application affords methodical compression, and in prurigo and lichen, the first application has given favorable results. In psoriasis the results have been encouraging, but further experience is necessary to determine the real value of the remedy.

To apply the dressing, it should be permitted to rest for an instant upon warm water of a temperature which can be supported by the hand, and smoothly applied.

If any difficulty is experienced in removing the dressing, a corner should be raised and moisture applied by wetting both sides, when it will be found to come away easily.—*L'Union Médicale*, October 31, 1885.

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RESECTION OF THE JAW FOR ANCHYLOSIS.

IT is a very remarkable thing to find an operation, which would seem to be so natural as this, among the most recent and rarest in the history of surgery. And yet, so far as available statistics indicate, resection of the lower jaw, at the joint, for anchylosis, has been done only in about thirteen cases, and of these only three have been in this country. The first operation was performed, in 1874, by Dr. S. D. Gross, and the other two were done, in 1875 and 1884, by DR. J. EWING MEARS. The first of Dr. Mears's operations is reported in the *Transactions of the American Surgical Association* vol. i., and from a short historical sketch of the subject, which is appended, it may be seen that a number of surgeons have come quite near the idea of this operation. One of the earliest was Dr. Carnochan, of New York, who, in 1840, suggested the removal of a segment of the lower jaw in order to restore its mobility; while independently, although fifteen years later, Esmarch proposed a similar operation, which is now known by his name; and, in 1857, Rizzoli divided the jaw in front of a cicatricial contraction, and inserted gutta-percha plates to prevent subsequent union of the divided surfaces. None of these operations, however, is to be classed with resection of the jaw at the joint, a procedure which should properly be credited to Bottini, who, in 1872, communicated to the Royal Academy of Medicine of Turin a case in which he did a subperiosteal resection of both condyles for permanent closure of the jaw. He was the first to operate directly upon the joint, and the result was most excellent.

In 1874, the elder Gross, in a case of complete synostosis of the lower jaw of the left side, in a girl seven years of age, excised the condyle along with a portion of the neck of the bone, through a curvilinear incision in front of the ear, and established excellent motion. König, in 1876, did a resection of the left temporo-maxillary articulation for anchylosis, and he operated in the same way again in 1877. Both cases were entirely successful. His method of operating is as follows: An incision, about an inch long, is made over the lower border of the zygomatic process, and another, about two-thirds of an inch long, is made perpendicular to, and descending from the former. The latter incision is carried only through the skin, so as to avoid the facial nerve. Through this opening, after cutting some of the fibres of insertion of the masseter muscle, the articular process of the maxilla is cleared with a raspatory, after which it is carefully separated from the ramus with a chisel, and removed from the cotyloid cavity. König reported these cases in the *Deutsche Zeitschrift f. Chirurgie* in 1878, and recommended removing the coronoid process also when this might be necessary. At about the same time, and apparently independently of any suggestions, von Schultén operated upon both sides of the jaw, commencing with the removal of the coronoid processes. König's method has been followed, with slight modifications, once by Ranke in 1878, and twice in 1885; once by Hagedorn, in 1880; and once by Langenbeck, in the same year; while Kulenkampf reports an operation in the *Centralblatt f. Chirurgie* of this year as done by the method of Mears.

When to this list is added another operation by König, in which the patient died of chloroform narcosis, we have a concise history of the operation of resection of the lower jaw, at the joint, for immobility. In analyzing the cases reported, and more particularly the interesting paper upon this subject by Mears, already referred to, and a recent one by RANKE, in the *Archiv f. Chirurgie*, Bd. xxxii. Heft 3. 1885, we observe that the operation is not so clearly defined as to its indications, or its mode of performance as one might at first sight suppose. As now understood, it may be described as an exsection of the articular process of the inferior maxilla for anchylosis, with subsequent freeing of any adhesions, cicatricial, muscular, ligamentous, or bony, which stand in the way of its success. But it is clear that the operation of excision of this part of the bone is wholly out of place as a means for the restoration of motion which is impeded solely by contraction of the soft tissues. For this, other measures may be successfully employed. The operation cannot, moreover, be considered as strictly applicable to the cure of irreducible luxations, although it has been twice done successfully for this object. For its legitimate purpose, however,

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there can be no question that it is deserving of a high place in the list of approved surgical measures. In the perfection and permanency of its results it leaves little to be desired. The old methods of wedging and prying open the jaw were harsh and comparatively fruitless. This is painless to the patient, and almost absolutely safe, if properly carried out.

But what is the best method of doing the operation? To this question we think it is safe to answer as Ranke does, namely: to make the first incision of König over the lower border of the zygomatic process, and to omit his second, perpendicular to it. When it comes to the separation and removal of the piece of bone, we would strongly urge the advantages of drilling it out with the rapidly revolving burr of the so-called "dental engine" invented by Dr. Bonwill, of this city. When this machine is used by one who understands its management, its work is vastly superior to anything which can be done by the chisel and mallet, even in the most accomplished hands. As it is, unfortunately, not always available, the next best method is to use the chisel as carefully as possible. In some of the operations reported, the bone forceps, or the saw, has been used. But these have all been cases in which there was much more than a simple exsection of the articular process. That of Dr. Mears was a removal of quite half of the ramus. Peculiar circumstances, such as there existed, may demand the resection of so much bone, but in its simplest form the operation should not contemplate this.

Before closing, it may be well to refer to a proposition made by Bassini, of Milan, in 1879, to correct anchylosis of the jaw, by removing, with a small trephine, a portion of the neck of the bone. This method has much to commend it where it is feasible, but it differs only in degree from the earlier operations in which the bone was divided at different points below the seat of the adhesions. Ranke thinks it is open to the objection applicable to all of them, namely, the liability to speedy reunion. That may be, or not, as experience may decide. At any rate, the operation of excision at the joint, with which the names of Bottini, Gross, König, and Mears are justly to be associated, is one which may be commended to further trial on the part of surgeons who have to deal with otherwise incorrigible anchylosis of the jaw.

CHOREA.

THE etiological and pathological relations of chorea are still obscure, and widely divergent opinions prevail on many questions connected with the disease. A much debated point is the association of it with rheumatism, the percentage of cases connected with this disease ranging in the tables of different authors from two or three to twenty-five or thirty. It is certainly true that a considerable number of all choreic patients have joint pains, which are usually attributed to rheumatism, but JOFFROY and his pupil, SARIC, in *L'Union Médicale*, Sept. 22, regard them as choreal arthropathies associated with the nervous affections, and not necessarily of rheumatic origin.

In support of this view they refer to the absence of fever, the fugitive character of the pains, the small number of joints affected, often of one side only, and the absence of heat, or swelling. The cardiac troubles they attribute chiefly to functional disturbance. They regard the disease as a cerebro-spinal neurosis associated with the evolution of the nervous system, and, in the female particularly, with the development of puberty. The influence of psychical causes—fright, emotion, imitation—in causing the disease, the intellectual disturbance, the predominance of the trouble on one side, and the character of the motor and sensory affections without any constant pathological lesion, point, they think, to a neurosis. That the spinal cord is also affected is shown by the abolition, or diminution of the reflexes in twelve of sixteen cases, and by the arthropathies which may be considered as trophic lesions of the joints.

Joffroy's views of chorea as a neurosis of growth are not new, but the suggestion of the relation of the joint affections to the cerebro-spinal trouble is worthy the attention of those interested. With reference to the participation of the spinal cord in chorea, we may refer to the interesting observations of Dr. Money on the experimental production of the disease in animals. By injecting a particulate liquid into the carotid, he has produced involuntary movements indistinguishable from those of chorea, and this was found to be associated always with embolism of the capillaries of the cord. The movements induced were both irregular, as seen in the chorea of man, and rhythmical repetitions of one movement as in the ordinary chorea of dogs.

DR. H. C. WOOD has recently given a statement of his views on this subject, and adduced further evidence in favor of the participation of the cord in the disease. In two choreic dogs, after section of the cord, the movements still continued, as had been demonstrated by Chauveau, and this experiment proves conclusively that, in these animals at least, the movements originate in the cord. But further, in four cords from cases of canine chorea, there were found, in three, mild grades of infiltration of leucocytes in the gray matter, and in the fourth, in which the animal had died of the disease, the ganglion cells were degenerated, and in some places had disappeared altogether. He concludes that choreic movements may depend upon a diseased condition of the motor cells of the cord, a condition, in most in-

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stances, not sufficiently marked to be noticed with our instruments, but in others it may go on to produce changes in the ganglion cells, or even their total destruction. There are at least five or six cases of human chorea in which there have been observed distinct lesions of the spinal ganglionic cells, and in some instances embolism of the antero-lateral arteries of the cord, as recorded by Ross. But, as Kirkes originally suggested, and as the investigations of Jackson, Broadbent, Bastian, and others have shown, there are other instances in which capillary embolism about the basal ganglia seems to stand in causal connection with the phenomena of the disease. Neither the cerebral nor spinal changes, however, are constant, as cases have been examined in which no definite lesions could be determined.

Many of the clinical features of chorea are quite inexplicable on the embolic theory—as the production by fright, or imitation, the influence of season, as pointed out by Mitchell, the rapid cure by arsenic, and its occurrence in epidemic form, as happened repeatedly during the middle ages, and in the early part of this century in Tennessee and Kentucky, as reported by Robertson in 1805. We must suppose, therefore, the disease to be produced by a variety of causes. Dr. Wood defines the chorea of childhood, as "a diseased condition of the ganglionic structures of the cerebro-spinal axis, which abnormal state may exist without alterations of structure sufficient to be determined by the microscope, or may go on until it is accompanied by marked structural lesions. Further, this condition must be looked upon as one of lowered tone, and it must be allowed that it may be produced by various causes." An important point has always been duly insisted upon by Hughlings-Jackson, namely, that we must suppose in chorea over-activity of some nerve elements to account for the coexisting over-movement. It is absurd to suppose that from cells in a state of advanced degeneration, shrivelled and wasted, motor impulses, active though irregular, could proceed. Such destruction could account for paralysis, but surely not for over-movement. Hence it can scarcely be a condition of lowered tone.

In spite of the occurrence of choreic movements under various conditions, and the multiple origin of the disease of childhood, we may still look upon chorea as a distinct nosological entity. Dr. Wood does not regard it as such, holding that the word should be employed "as analogous to, or having equal rank with, paralysis or tremor;" but after excluding the cases of post-hemiplegic, of rhythmic (hysterical), and of electric chorea, there remains the affection of childhood with its well-marked characters, which is as much deserving of recognition as a separate disease, as is epilepsy, or tetanus.

ELECTRICITY IN OBSTETRICS AND DISEASES OF WOMEN.

SEVERAL interesting contributions relating to the uses of electricity in obstetrics, and in diseases of women, have recently appeared. Among these, may be mentioned the application of this agent in the cure of extrauterine fœtation, by DR. LANDIS, in *The American Journal of the Medical Sciences*, for October, papers presented by BAYER and LOEWENTHAL to the Gynecological Section of the German Society of Naturalists and Physicians, which appear in the *Centralblatt für Gynäkologie*, October 17th, a paper by APOSTOLI and DOLÉRIS, upon the treatment of periuterine hæmatocele by galvano-puncture, published in the *Archives de Tocologies*, November, and a paper upon electricity as a therapeutic agent in gynecology, read before the New York Academy of Medicine by DR. MUNDÉ, which appeared in THE MEDICAL NEWS of last week.

From experiments upon insects, minnows, and rabbits, Dr. Landis has been led to conclude that the faradic current in extrauterine pregnancy should be applied for an hour, if the patient can bear it so long; it should be applied repeatedly, and it should for at least one sitting be used in great strength.

Bayer reported four cases in which the constant current was used for the induction of premature labor. The first was a 5-para, who in her four previous labors had been delivered of dead children by podalic version. At the end of nine lunar months the constant current was used, and after the first application labor pains were excited, while after the sixth the mouth of the uterus was completely dilated: a living child was born, but it survived only ten days. In the second patient pains were also promptly excited by the constant current, and she gave birth to a living child which died in six hours. In the third the os uteri was dilated after seven applications, but the pains always ceased after the interruption of the current. At the expiration of three weeks and a half spontaneous labor occurred at the normal time, and a living child was born. In the fourth patient, after nine applications, a gangrenous ulceration of the cervix appeared; when this healed the application was renewed, with at least a partially satisfactory result.

Bayer concludes that the constant current excites uterine contractions, dilates the os, and removes cervical stricture. He very justly remarks, after referring to the fact that the results are not the same in all cases, that a brilliant effect is only had when the uterine musculature is very good, and the neck is not very rigid.

In the discussion of the paper, Homburger stated that he had failed to increase the labor activity in a primipara by this means, but that in two cases of

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uterine fibroids attended with metrorrhagia, in which ergot had been used without benefit, the constant current gave an excellent result. Schatz regarded it as very probable that the uterus, like the heart, had nerves, which not only strengthened the activity of contraction, but also some which weakened it; and that the nearer the subject is to the end of pregnancy, the more quickly and certainly various means for the induction of labor act. Müller, in one case, had a very satisfactory result in the induction of labor by the constant current, while in five others, on the contrary, it failed.

It is evident, from this discussion, that we cannot accept the use of the galvanic current as a certain means of inducing labor.

Loewenthal, in a series of cases of chronic metritis, used at first faradization, then the mixed currents: the effect, especially of the latter, was prompt and lasting, so that uteri, the cavities of which measured five inches, were reduced until they measured only about three inches. The other cases in which electricity was used successfully were those of genital neuroses.

As to the method of application, Loewenthal always places the cathode in the uterus, and the anode upon the abdominal wall; the current should at first be weak, the strength gradually increased, and again made weaker before withdrawal. Thus the application is painless, but the effect is greater and more lasting if the current be suddenly interrupted. The electrode should not be placed in contact with the anterior vaginal vault, because severe pain is thereby produced. The sitting should be only from five to ten minutes, and ought never be continued more than fifteen minutes. He found no benefit from the continuous current. He regards electricity as of no value in the treatment of positional disorders of the uterus, except in relieving the nervous symptoms which may be connected with them, and he considers the mixed currents as only indicated in the treatment of chronic metritis and genital neuroses.

Loewenthal's denial of the value of electricity in positional disorders of the uterus is too positive, as one may see by referring to Tripier's *Leçons Clinique sur la Maladies des Femmes*, Paris, 1883. Several cases of uterine deviations—both versions and flexions—are there narrated, which were cured by faradization. The results obtained by Tripier have been in part confirmed by experiments made in the dispensary department for diseases of women in the Jefferson Medical College Hospital. These were conducted by Dr. Graydon, and in some cases uterine flexions were cured by this means, the instrument and electrodes advised by Tripier being used, and his method strictly followed. An objection to the treatment of uterine deviations by electricity is the long period required—in some instances six months, and hence the difficulty in securing the regular and continued attendance of patients.

Apostoli and Doléris report a case of retrouterine hæmatocele occurring in a woman forty years of age, which was opened nearly six weeks after its appearance, by negative galvano-puncture through the vagina. The positive pole is put in connection with a cake of clay upon the abdomen, or upon one of the thighs; the force of the current should reach one hundred milliampères, and usually the application is continued five to ten minutes; the cauterization should penetrate from about four-tenths to eight-tenths of an inch. Should the puncture open a large vessel, and serious hemorrhage follow, the arrest of this is at once made by forced dilatation of the vagina by means of Gemrig's speculum, which is kept in place for some time.

We fail to see in the history of this case any advantage from this method of opening the hæmatocele, which could not have been attained, had this been done by the thermo-cautery, or the galvano-cautery knife. It is claimed, however, by the author, that the method used, not only secures a large fistulous outlet, but also creates in the blood-mass an intimate process of disintegration, followed by a rapid regression.

A very full abstract of Dr Mundé's paper having been so recently given in THE NEWS, it is unnecessary to repeat this in even a condensed form. Our belief is, that the author does scant justice to the intrauterine galvanic pessary, and that he asserts too positively that the instrument owes its value to its being a foreign body: this last statement may be true, but any one who has observed the rapid corrosion of the zinc portion of the pessary, will not regard it as impossible that some galvanic action is developed while it is in the uterus. Our experience authorizes us to assert that a faithful trial of this instrument properly applied, and in suitable cases, has been followed by results that we believe could not have been otherwise obtained.

Dr. Mundé's paper, however, is a most valuable and timely contribution to the subject of electricity in diseases of women.

SOCIETY PROCEEDINGS.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, November 5, 1885.

THE PRESIDENT, B. F. BAER, M.D., IN THE CHAIR.

LYMPHATIC LEUKÆMIA IN CHILDHOOD.

DR. JOHN M. KEATING read a paper on this subject, which is particularly interesting on account of its clinical rarity and the infrequency with which we meet the disease in current literature. He prefaced it with a few

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remarks on the blood in children in health, and also spoke briefly upon its condition in disease.

(See page 562.)

DR. GOODELL inquired whether there are any distinguishing points between purpura hemorrhagica and lymphatic leukæmia. If there is a deficiency of red blood-corpuscles, why do red patches occur so easily?

DR. KEATING remarked that the subject under discussion was dependent upon certain conditions which physiologists are still debating. In leukæmia we have, as a diagnostic feature, an involvement of the lymphatic system more or less, a hyperplasia of the tonsils, lymphatic glands of the peritoneum and of the intestines, also of the spleen and bone-marrow, all of them being more or less connected with red-cell formation, but the principal diagnostic point is the increase in number of the colorless cells, as is noted in Dr. Osler's report. The hemorrhages in these cases are possibly due to a diapedesis or capillary rupture. In what is known as purpura hemorrhagica there is an exudation of blood cells, or the hematin from their destruction into the rete mucosum and the papillary layer of the cutis; of course, capillary ruptures may occur with profuse hemorrhage. The blood cells (red) are usually diseased, they become crenated or they cease to form rouleaux, and possibly the plasma may be at fault. The microscope alone will reveal the distinguishing features. Purpura may be considered a symptom accompanying a dyscrasia in which the blood itself is involved, not merely the organs of its production.

DR. WILLIAM GOODELL exhibited the ovaries from two cases of oöphorectomy with the following histories:

OÖPHORECTOMY FOR OVARALGIA.

When the patient, an unmarried woman aged thirty, first consulted him, she weighed two hundred and thirty-six pounds, but at the same time she was very weak and could barely walk. She suffered excessive pain at her catamenial periods, which appeared only at long intervals. She had cataleptic and hystero-epileptic fits, and complained of very constant and acute ovarian pains. Her urine was passed but once a day and this act was attended with much suffering. The womb was enlarged and the ovaries were very tender indeed, but nothing else abnormal was discovered. Asafetida and the bromides were prescribed in large doses, and she was advised to try the rest treatment.

Fourteen months later she was again brought by her physician to consult Dr. Goodell. She now weighed only one hundred and twenty pounds, having lost one hundred and sixteen pounds, and she was in every respect worse, her ovarian pains being now constant and acute, requiring large doses of morphia to control them. Her catamenia had not appeared for nigh four months, and tonics seemed to have no effect whatever on her. Her physician was compelled to be in constant attendance and was liable to be summoned at any hour, day or night, to give her a hypodermatic injection. Masturbation was suspected, but she always denied the practice. Nothing further could be done than the operation of oöphorectomy, which was accordingly performed a few days later at the hospital of the University. The ovaries were found much enlarged from cystic and interstitial degeneration, but there were no evidences of peritonitis or of cellulitis, which had been suspected. A corpus luteum existed in one ovary, a rectal hemorrhage or vicarious menstruation having taken place a few days before the operation. Her ovarian pains at once left her; she needed but very few doses of opium, which were given by rectal suppositories. Her convalescence was prompt and she returned home in less than four weeks free from all pain, and in a fair way to get perfectly well. The case was a typical one of the advantages of oöphorectomy, yet he thought that the operation is being performed altogether too frequently.

OÖPHORECTOMY FOR BLEEDING FIBROID OF THE WOMB.

In this case the lady was thirty-seven years of age, and had been married eleven years. She gave birth to a child about seven years ago, and since then has had one premature birth at seven months and one miscarriage. She first noticed an abdominal tumor nine years ago, but her catamenia began to be free some time before this. Late in the year 1881 the catamenia began to be excessive. As nothing served to check them, early in the following year Dr. Goodell was consulted. He found multiple fibroids of the womb. Six tumors could be readily made out, of which two seemed pedunculated; the sound gave a measurement of 4.5 inches. Under ergot and ammonium chloride the patient improved for several months; then the menorrhagia became worse, and finally a dribbling of blood kept up between the periods. In May of the present year she again consulted Dr. Goodell. She had been dribbling continuously since January, and was much reduced in strength. Being a brunette, she exhibited the facies uterina in a marked degree, the pigmentation being very dark and extensive. The womb now measured 7.5 inches. She was admitted into Dr. Goodell's private hospital, and on May 24 both ovaries were, without difficulty, removed. They were greatly enlarged by follicular degeneration, a condition which Dr. Goodell had repeatedly seen in cases of fibroid tumor. The effect of the operation on the tumors, and especially on the main one, was astonishing. After two weeks this fibroid had diminished in length nearly a hand's breadth. Her recovery was prompt, and she was sent to Atlantic City to recruit. On July 10, just forty-seven days after the operation, she called on Dr. Goodell, who found the tumors very greatly reduced in size, and the uterine cavity measuring only 3.25 inches, a diminution of 4.25 inches.

This extraordinary amount of diminution, in spite of the fact that the obliteration of the ovarian bloodvessels cut off only a small portion of the blood-supply to the womb, drove him to the conclusion that the ovaries were the important factors in inviting blood to the womb. Every successful case in which he had removed the ovaries for fibroid tumor of the womb had been followed by the menopause and by rapid diminution in the size of the tumor. But in his hands, and in those of others, this operation was more fatal than that of ovariotomy. During the ten months of the present year he had had twenty-five cases of ovariotomy, with but one death, and that one in a lady operated on at her home, two hundred miles from Philadelphia. For simple cases of oöphorectomy the mortality should not be greater than that of ovariotomy. But when complicated with the presence of a large or an adherent fibroid

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tumor, the operation is often one of great difficulty. Twice during the past year he was unable to reach the ovaries, and was compelled to abandon the operation, because in neither case was the woman willing to undergo the risk of having hysterectomy performed. Each case recovered; and while the women were under observation the tumors appreciably lessened in size, as if the shock of the exploratory incision had temporarily suspended the ovarian influence.

DR. MONTGOMERY was glad to hear the good results of Dr. Goodell's cases. In a few of the cases upon which he had operated, the menopause did not at once occur, sometimes not for two years after the operation. In such cases the tumor did not decrease in size while menstruation continued. In the case of hysterectomy for fibroid tumors, reported by Dr. Montgomery at the last meeting, the temperature at no time exceeded 101⅘°, and the patient left the hospital to-day perfectly well. He preferred removal of the uterus and its appendages entire when the ovaries cannot be removed in consequence of previous inflammatory changes. Ligation of bloodvessels supplying the tumor might be useful when nothing better could be done.

DR. BAER thought that when the ovaries can be removed, it is the perferable operation.

DR. GOODELL has been so uniformly successful in removing the ovaries for the cure of fibroid uterine tumors that it is his choice. He has been notified that in a case of fibroid tumor of the womb in a woman aged thirty-two years, he will be called in consultation; this will be the third. He will advise removal of the ovaries; if at the time of operation that is not found possible, he will close the incision, as the other operation is very dangerous, and the patient can certainly live a few years as she is. In one case only of his oöphorectomies has the menses continued, and he thinks that in that case these must have been some supplementary ovarian tissue.

OVARIOTOMY.

DR. MONTGOMERY exhibited for Dr. Warden a large ovarian tumor, and related the following history: The patient was a young woman. Her menses commenced at seventeen years of age, and had always been irregular. They ceased entirely for twelve months, and at the same time the abdomen was enlarging until the tumor reached above the navel. Fluctuation was doubtful; the mass seemed quite solid, and pressed the uterus down into the pelvis. Anæsthesia did not relax the abdominal wall, and diagnosis was doubtful. An exploratory incision, showing the pearly tint of an ovarian tumor, made it sure. Nothing would pass through the trocar but some of the jelly-like contents of the tumor escaped beside it, and passed into the abdomen. The large cyst was filled with small cysts. The patient did well for one week, when the pulse became rapid; but she has since been doing well, and is now rapidly recovering.

DR. GOODELL thought the danger from the escape into the abdomen of cyst contents is overrated.

DR. BAER said that in the early stage of ovarian tumors metrorrhagia is sometimes present; sometimes the menses are entirely absent. He should like to hear from the Society some reason for this inexplicable difference.

DR. GOODELL has observed the same fact, but can throw no light upon it.

DR. MONTGOMERY remarked, that in this case both ovaries had undergone cystic degeneration. The second ovary contained numerous small cysts.

DR. BAER inquired about the treatment of the second ovary.

DR. MONTGOMERY replied that it was removed.

DR. CHARLES HERMON THOMAS read a paper on.

SOME USES OF COCAINE IN GYNECOLOGY.

(See page 567.)

DR. KEATING has used cocaine for some time in the same class of cases. He now uses eight per cent. solution with great success, especially in children's throats. He employs salicylate of cocaine in diphtheria in a five or six per cent. solution; sensibility disappears in a short time, and he can then use any application without discomfort, he applies carbolic acid, tincture of iodine, etc., in this manner without exciting pain. He also applies cocaine before injecting carbolic acid into piles, and also applies it on cotton to prevent its action from ceasing too soon.

DR. THOMAS said that the strength of the solution may, with propriety, be greatly varied, and that in his practice upon the eyes even a one per cent. solution is strong enough to be of considerable value in conditions of irritation produced by foreign bodies in the eye; but in other cases, as urethral caruncle, it may be well to use it even in saturated solution. The question of strength is largely a question of expense, for in local application no toxic results are likely to be produced.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, October 27, 1885.

THE PRESIDENT, ROBERT F. WEIR, M.D., IN THE CHAIR.

STRICTURE OF THE ŒSOPHAGUS; INTERNAL ŒSOPHAGOTOMY.

DR. H. B. SANDS presented a woman, twenty-one years of age, who had come under his observation one year ago last June. She was sent by Dr. Paddock, of Dalton, Mass., on account of a stricture of the œsophagus, which was the result of the accidental swallowing of a solution of caustic potash when she was two years old. Dr. Paddock stated that he had been called to see the patient on account of dysphagia. She was unable to swallow solid food, and was badly nourished. He detected a close stricture through which he could pass only the smallest sized bougie. When she came to Dr. Sands he was able to confirm the diagnosis made by Dr. Paddock, and found a stricture situated seven inches from the incisor teeth, through which he could introduce a French catheter, No. 12. He endeavored to dilate the stricture, and succeeded in carrying the dilatation up to No. 23, French, but was unable to accomplish more. Therefore, on the ninth of July, 1884, he introduced the œsophagotome, which he had already shown to the Society, passed the bulb beyond the stricture, projected the blade one-tenth of an inch and then withdrew it, making an incision in the posterior median line of the œsophagus. Immediately after the opera-

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tion, which was performed without an anæsthetic, and was attended by no hemorrhage, he passed a No. 29 French bougie; subsequently he carried the dilatation up to No. 34, French. After the cutting operation instruments were at first passed every second or third day, and during the summer and autumn at intervals of three weeks. In December the interval between the introduction of the bougies was increased to one month, after the first of January to two months, and now there has been an interval of three months without any diminution in the calibre of the œsophagus at the point where it was divided.

Soon after the operation, exploration of the œsophagus revealed the presence of another stricture ten inches from the incisor teeth, which admitted No. 24, French. Dr. Sands dilated this stricture, and carried the dilatation up to No. 29; but beyond this he had been unable to dilate it.

He then demonstrated the lower stricture, and showed that the upper stricture allowed a bougie, No. 34, to pass, while the lower one arrested instruments larger than No. 29.

The reason why he presented the patient was because he thought it desirable to correct the common impression that all strictures of the œsophagus exhibit an invincible tendency to recontraction, and that the operation of internal division is unsatisfactory because it is not likely to produce any permanently good result.

It so happened that he had received this evening a communication from the friends of a child upon whom he had performed several operations of internal œsophagotomy two years ago for the relief of a stricture of the œsophagus, and whose case he had already reported to the Society. In that instance the dilatation was carried up to No. 29. The child improved in health, is able to eat solid food, and has remained well ever since. At the present time she swallows as other children do, yet no bougie has been passed since last May.

Dr. Sands cited these facts in order to prove that internal œsophagotomy may sometimes produce results which are permanent; and although the œsophagus may not be restored to its normal dimensions, it may not show a tendency to contract below such dimensions as will permit easy deglutition.

He had been led to desist from doing more in the case exhibited this evening because the patient is in good health, has gained in weight from ninety-six to one hundred and nine pounds; is able to swallow liquids without difficulty, and with care to swallow solids when well masticated.

Stricture of the œsophagus closely resembles strictures of the urethra, in which there is found every grade of constriction, and also a vast difference in the amount of tissue which causes it. He had seen a case of stricture of the œsophagus in which the entire tube was converted into a rigid canal. Under those circumstances no operation whatever could succeed in restoring a fair amount of dilatability of the œsophagus; but he believed that in many cases strictures are limited to a very short part of the canal, and in those cases he imagined that the operation of internal œsophagotomy would be likely to be followed by the greatest relief, with a minimum amount of risk.

DR. STIMSON asked, Why refrain from further operation upon the lower stricture in the patient presented?

DR. SANDS replied, only because it seemed already large enough to allow the easy deglutition of masticated food, and also because it had not shown any tendency to contract below the calibre of No. 29. He was, moreover, inclined to refrain from cutting the lower stricture for the reason that it is related to more important parts than the upper one; therefore accident in the operation may be more serious in its results. He imagined that the calibre of the œsophagus may be restored to its normal size, but he did not feel warranted in doing more than seems absolutely necessary to render deglutition easy.

DR. W. T. BULL had had occasion to treat one case, that of a lady who entered the New York Hospital two years ago. The stricture was about ten inches from the incisor teeth, and depended, so far as they were able to determine, upon a bad sore throat, possibly diphtheria. The patient could swallow only with great difficulty anything except water. The stricture admitted only No. 8, possibly No. 10, French. By persistent gradual dilatation the stricture was stretched until at the end of four months it admitted No. 32 or No. 34, French. Dr. Bull saw the patient up to one year afterwards. The bougie was passed at short intervals during four months, and at intervals of one month during the remainder of the year, at the end of which time the condition of the œsophagus was perfectly satisfactory, as she could eat anything which she chose.

CONGENITAL ANGIOMA.

DR. MCBURNEY presented a man who had a congenital angioma of unusual size upon the right side. The tumor was five inches in breadth, four in depth, and extended from the median line in front to within three inches of the median line behind. The patient stated, that during early youth and until within the last seven or eight years the tumor had bled regularly, and that he had lost large quantities of blood, sometimes as much as a quart at a time. During the last seven or eight years he has been very comfortable with firm compression of the growth, and has had no hemorrhages. Dr. McBurney felt inclined to advise him to continue with this treatment, and not to have any operation whatever performed. The tumor was not pulsating at any part, was venous, and was of the cutaneous and subcutaneous variety, chiefly the latter.

EPITHELIOMA OF THE TONGUE; REMOVED BY KOCHER'S METHOD.

DR. L. A. STIMSON presented a specimen of epithelioma of the tongue, for which he had removed almost the entire organ by Kocher's lateral supra-hyoid method. The patient was a man 68 years old; the disease extended as far back as the finger could reach through the mouth, and involved the floor of the mouth and the gum on the right side from the median line two inches backward. On the dorsum of the tongue was a very large irregular ulcer. Tracheotomy was done and the etherization was continued through the tube. The incision was made on the right side, and the right lingual and facial arteries tied in the wound before division; the left lingual was tied through the wound after divi-

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sion, and this is the only ligature that was made necessary by the removal of the tongue. The entire organ, except a strip of mucous membrane at its base, was removed, as was also a portion of the submental muscles which had become involved in the disease. The area of raw surface created by the removal, was diminished by drawing the adjoining mucous membrane over it so far as possible and stitching it fast. The wound was packed with iodoform gauze, the mouth frequently cleaned by washing with a solution of salicylic acid and borax, and the patient has been regularly fed through an œsophageal tube. The tracheotomy tube was removed on the sixth day. The patient is now (16th day) doing well.

DR. SANDS had within the last ten days had occasion to remove the lateral half of the tongue on account of a cancerous swelling situated on the left side of the organ, extending toward the root but not to the median line. He adopted the method known as Whitehead's method. He etherized the patient, introduced Wood's mouth gag, passed a stout ligature through the tongue upon the right side, drew it forward, divided with a pair of straight scissors the attachment to the lower jaw and to the floor of the mouth, split the tongue in the median line toward the root, then made a transverse cut, dividing the tongue and the anterior pillar of the soft palate, and completed the operation with loss of only about eight ounces of blood. He had but little difficulty in applying a ligature to the lingual artery. He packed the wound with gauze, and used a small stomach tube for feeding the patient; during the first week the progress of the case had been entirely satisfactory, and the man is now able to swallow, and is convalescent. Dr. Sands was very much impressed with the excellence of the method in those cases in which the disease is strictly limited to the tongue. He was sure that the operation could be safely done if the entire organ required to be removed, and he should prefer to perform this operation rather than that which included a preliminary ligation of one or both lingual arteries.

DR. BRIDDON asked whether the difficulty in securing the arteries would not be greater in Whitehead's operation.

DR. SANDS replied that the operation did not consist in cutting off the tongue at once, but by making short strokes, and tying the arteries as they are divided. Of course, the cases should be selected in which the operation is especially applicable.

THE PRESIDENT remarked, with regard to Kocher's operation for removal of the tongue well back, that it had pleased him most on account of the thoroughness with which all diseased tissue can be removed.

NECROSIS OF THE HUMERUS WITHOUT THE FORMATION OF INVOLUCRUM.

DR. A. C. POST presented a specimen of necrosis of the humerus without any attempt at the formation of involucrum. It was removed from the arm of a boy 12 years of age, with the history that, between one and two years ago, he was bitten by a spider, and that the bite was followed by very severe inflammation. A number of months afterward extensive suppuration occurred about the joint, and Dr. Post performed excision of the elbow. Subsequently he found the wound at the joint had healed, but that there was suppuration higher up and loss of continuity in the bone of the arm nearly as high as the middle of the humerus. Recently he cut down upon the bone and found that its lower extremity was necrosed to the extent of 2¾ inches on one side and 1⅝ inches on the other. The dead bone was lying loose in the midst of granulations. The inferior extremity of the living bone above presented a jagged extremity, but was not bone to any considerable extent. He did not remember any other instance in which necrosis of a long bone of an extremity had occurred without the formation of involucrum, except in a case of necrosis of the fibula; also in a boy, in which the tibia was not involved. In that case the fibula for its whole length, except the two articular extremities, was in a state of necrosis, and there was no involucrum. The tibia formed a support for the limb, so that there was no false point of motion.

DR. L. A. STIMSON thought that something besides simple necrosis had occurred in the bone presented, and it was filled with bony deposit, and that the shell had disappeared by absorption.

DR. POST remarked that the whole process is different from the ordinary process of necrosis, but the bone was evidently dead.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, November 6, 1885.

THE PRESIDENT, THOMAS G. RODDICK, M.D., IN THE CHAIR.

TUMORS OF THE OVARY.

DR. WM. GARDNER presented two ovarian tumors which he had removed from the same individual; the right one had been removed by enucleation of the cyst, and the left by ligature of a very broad pedicle. Troublesome hemorrhage occurred, which was with difficulty arrested by ligature and the thermo-cautery. The patient did well.

DR. TRENHOLME also presented a large ovarian tumor which he had that day removed, and which, on the right side, contained a large solid mass, which he looked upon as malignant.

FATAL PULMONARY EMBOLISM ARISING FROM SIMPLE FEMORAL THROMBOSIS.

DR. GEORGE ROSS exhibited the heart and lungs of a patient, under his care, who had died suddenly in the General Hospital. The pulmonary artery, on being laid open, showed its left branch plugged by a thick fibrinous clot, beginning an inch above the valves, the lower end lying loose in the main artery, and for some distance curled back upon itself. Still nearer the heart, and almost touching the valves, lay a second loose clot, about three-quarters of an inch long, having the same appearance as the first. The clotting extended far into the lung, and even some of the small bronchial branches were plugged. The right pulmonary artery and its divisions were quite similarly occupied by an extensive fibrinous deposit. The femoral vein was also shown, containing a clot several inches in length, and extending a long way down the internal saphenous vein.

The patient was a young woman who had presented the usual symptoms of a simple anæmia for some months, when she developed pain and swelling of the

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right leg. She was then admitted to the Montreal General Hospital, under Dr. Ross, when the existence of a femoral thrombosis was readily detected by the presence of a firm cord in the situation of the vessels. Her general condition was good, with the exception of a moderate degree of anæmia. One week after admission, after having passed a good night, she complained early in the morning of suddenly feeing faint; this soon passed off, and nothing more was thought of it. At 12.45 P.M she became suddenly breathless and much distressed. Stimulants were administered, but in fifteen minutes she was dead. The occurrence of pulmonary embolism was immediately suspected, and at the post-mortem the condition already described was found.

Dr. Ross remarked that, although very frequently meeting with femoral thrombosis, it was the first time he had ever observed this fatal accident following from it. It had been his misfortune a short time since to meet with a sudden death ten days after a natural confinement, and a perfectly natural puerperium. An autopsy in this case likewise showed the fatal result to have occurred from pulmonary embolism, as had been suggested. The present case was of interest from the syncopal attack in the early morning, which no doubt was produced by surprise of the heart at the arrival of a foreign body. Dr. Ross said he had been very much struck in both these cases by the great extent of the clotting through the branches of the pulmonary artery, which must have taken time to form, although no pulmonary symptoms prevailed during that period.

EXCISION OF THE SPLEEN.

THE PRESIDENT (Dr. Roddick) exhibited portions of a spleen which he had removed a few days ago from a man in the General Hospital. The man had been struck by a loaded bucket of coal whilst in the hold of a vessel. The bucket, containing about half a ton of coal, had fallen from a height and crushed him against the side of the ship. When brought to hospital he was suffering severely from shock, greatly blanched and almost pulseless. There was a small wound in the left lumbar region between the last rib and crest of the ilium, which was bleeding freely. There was also fracture of several of the lower ribs on left side. Dr. Roddick enlarged the wound and found that he came immediately on the intestines, the intervening muscular structures being all torn away, leaving nothing but skin covering the intestines. Through this wound he removed a mass of tissue, which, on examination, proved to be a portion of spleen; the wound was enlarged still further, and the hemorrhage was found to come from a ruptured spleen. The vessels entering the hilus were ligatured, and the spleen was without difficulty taken away.

The man only survived the operation about six hours. At the post-mortem the lower six ribs on left side were found fractured, the left kidney lacerated in several places, and the bladder full of blood. There were only a few ounces of blood in the abdominal cavity.

GUNSHOT WOUNDS OF THE TESTICLE.

DR. JAMES BELL read a paper on gunshot wounds of the testicle, and reported two cases which he had seen in the late Northwest rebellion.

The first case was that a young soldier, aged twenty-eight, who, whilst skirmishing before Batoche, was struck by a rifle-bullet on the outer side of thigh immediately below and behind the great trochanter. On being brought to the field hospital it was discovered that the bullet had passed through the thigh, then entered the perineum at the root of the scrotum, and made its exit through the scrotum, carrying away a portion of the testicle. The portion of testicle that remained was extruded from the lacerated scrotum. After removing several pieces of cloth in the track of the bullet, the parts were cleansed with weak carbolic lotion, the injured testicle was returned to its proper place, and tbe scrotal wound closed with catgut sutures. There was no hemorrhage or other troublesome symptom, and the wounds were dressed with iodoform and carbolized gauze. The patient was now sent by steamer to the base hospital at Saskatoon. On his arrival (some days after the injury) he was found to be suffering from urinary infiltration, due no doubt to sloughing of the tissues and the perineum, injured by the bullet. Extensive sloughing occurred, and his life hung in the balance for days, but the scrotal wound never reopened, although most of the left side of the scrotum sloughed away. When last seen, July 1st, his wounds had all healed; the right testicle was about half its original size, firm, free from pain and tenderness, and freely movable in the scrotum. It had apparently quite recovered from the severe wound received two months previously.

The second case was that of a half-breed, æt. 32, who was found on the battlefield of Batoche, on the night of the 12th of May, severely wounded. He was brought to the field hospital for treatment, and was found to be suffering from a contused and lacerated wound, about two inches in diameter, on the back and outer part of left thigh just below the great trochanter. The adductor longus muscle was torn and partially separated at its origin. The left testicle and the whole lower two-thirds of the scrotum were carried away. The right testicle hung down uncovered, and its lower half was filled with fragments of metal. The wounds were probably caused by the bursting of a shell. The wounds were washed and dressed, and the pieces of metal removed from the testicle. In a few days the lower half of the right testicle sloughed off, leaving an irregular granulating surface. The other wounds did well, and after a few days Dr. Bell dissected back the remaining portion of the scrotum, pared the edges, and brought them together over the testicle. The result was very satisfactory, for in a few weeks the scrotum was completely healed, and the remaining portion of the right testicle could be felt firm and painless within it.

Dr. Bell went on to say that the success attending the expectant treatment in these two cases inclined him to the belief that hardly any laceration of the testicle could be so severe as to warrant castration, although from what he had been able to gather from the literature of the subject within his reach, immediate removal of the organ was recommended in severe injuries. All authors say that the injured testicle usually atrophies, and is sometimes the seat of neuralgic pain, so that as far as future usefulness went it might as well be removed at once.

The patients, however, are always pleased to have as much saved as possible. In the statistics in the surgical volume of *The History of the American Rebellion* the

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expectant treatment seems to have given better results than active operative interference; 586 cases are reported. The testicle was extirpated in 61 of these; 18 per cent. died. Of the remainder, treated by the expectant treatment, 11.9 per cent. died.

SEPARATION OF THE FIRST AND SECOND PIECES OF THE STERNUM.

DR. BLACKADER reported a case of a young man, aged eighteen, who, whilst exercising on the parallel bars in a gymnasium, felt something give away. On examination it was found that the first piece of the sternum was riding on the second; it was reduced without much difficulty, and kept in place with compresses and straps.

FRACTURE OF THE CLAVICLE WITH WOUND OF THE LUNG.

DR. F. W. CAMPBELL reported a case of fracture of the clavicle, in a coachman, aged thirty, caused by falling off his carriage and striking his shoulder on the wheel as he fell. The outer fragment was driven backward, and the lung was evidently wounded, as there was a large amount of air in the cellular tissue. The man when first seen was in a collapsed condition, and the whole neck was emphysematous. At first he was in doubt as to whether or not there was a fracture of the first rib, so he was sent to the General Hospital.

DR. RODDICK remarked that wound of the lung is a rare complication of fracture of the clavicle, and that there are very few cases on record. The man had been under his care in the hospital, and it was with difficulty that he could get the outer fragment into position. But the man is now doing well, and the bones are in good position.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, November 12, 1885.

THE PRESIDENT, J. C. WILSON, M.D., IN THE CHAIR.

DR. FORMAD presented specimens and read a paper entitled

AN ANALYSIS OF TWO HUNDRED AND FIFTY AUTOPSIES ON DRUNKARDS, ILLUSTRATING THE MOST PROMINENT ANATOMICAL LESIONS OF CHRONIC ALCOHOLISM.

He considered the most conspicuous lesions to be cyanotic induration of the kidneys, fatty infiltration of the liver, and mammillated stomach. His cases had been those, in which there was a history of a long-continued series of debauches, the subjects often dying in one of these debauches, and did not include moderate drinkers, or those who perished after imbibition of an enormous quantity of alcohol without any previous chronic excesses. He thought that the exposure, irregularities of diet, etc., incident to a state of drunkenness, had much—probably more than the alcohol itself—to do with the production of the lesions, but it is not at all possible to separate one from the other. He gave a long list of lesions considered by various authors to be results of chronic alcoholism, among which the cirrhotic liver with contraction held a prominent place. He had himself, at one time, considered cirrhosis a very frequent, if not almost necessary concomitant of long-continued excessive use of alcohol, and had even testified in court, that a certain person was not likely to have been a hard drinker, because at the autopsy no cirrhosis of the liver was found. He had thought, too, that the connection between the two is so close that it is impossible to have a case of cirrhosis, without a previous history of alcoholism, as is held by various authors. Therefore, it was surprising to him to meet in his two hundred and fifty autopsies, with only six cases of cirrhosis of the liver with contraction. In two hundred and twenty cases the liver was considerably, or even very much enlarged, the enlargement in most cases proving to be due to a fatty infiltration. Cyanotic induration of the kidney and chronic gastritis, with mammillation of the stomach, were found in nearly every case. This cyanotic induration is peculiar, and differs from the cyanotic induration due to heart disease. At a future meeting he will give a detailed account of the above lesions, and a more extensive analysis of the cases.

DR. TYSON could not speak from a systematic observation of a large number of autopsies in the cases of confirmed drinkers, but he remembered distinctly being surprised in several cases by the absence of cirrhosis, where he confidently expected to find it.

DR. WILSON said that Anstie in the article on Alcoholism in Reynolds's *System of Medicine*, had called attention to the comparative infrequency of contracted liver in confirmed drinkers. This observer, in an extensive outpatient practice in London, had seen large numbers of cases of alcoholism, but very few among them presented the physical signs of cirrhotic (contracted) liver. The experience of the staff at Blockley Hospital sustains this view. There, many of the patients are soaked with alcohol, but even among those whose death is directly or indirectly due to alcoholic excess, fatty liver is much more common than contracted liver.

DR. OSLER thought the experience of pathologists and morbid anatomists, with histories of patients, is not of the most satisfactory character, he often having had cases to dissect where he knew very little of the history. Before saying these cases were chronic alcoholics, Dr. Formad should present more specific statements about them. His own experience with livers in a large number of autopsies on cases of chronic alcoholism, had led him to divide them into four classes: 1. Those in which the condition of the liver is pretty satisfactory; some of these cases may take alcohol for many years and yet the liver pass muster; 2. Fatty cirrhotic livers; the cirrhosis may not, perhaps, be distinct to the naked eye, but plainly shown by the microscope; this is the largest class; 3. Hobnail livers; these, he would say, were much more common than in Dr. Formad's series; 4. Hypertrophic cirrhotic livers. The difference between his observations and those of Dr. Formad, might possibly be accounted for by the difference in the form of alcoholic beverage taken. He had not observed the special form of kidney described by Dr. Formad. In reply to a question, he said, in order of frequency he would place them, fatty cirrhotic, hobnail, hypertrophic cirrhotic, apparently normal.

DR. S. SOLIS COHEN said there are certain theoretical considerations which suggested themselves in this connection. The text-books teach that the lesions of alcohol are of two kinds, sclerosis and steatosis. It is known that in some organs the fibrous change precedes the fatty one. The latter is the higher grade of degen-

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eration. The subjects of Dr. Formad's autopsies were confirmed whiskey soakers, in whom one would expect to find more intensity of degeneration than in those whose use of alcohol, though persistent and excessive, was not so outrageous. Another point which had not been alluded to, is the fact, that some lesions may result from a local action of the poison upon the tissues, while others may be due to its systemic action. No study of the subject can be complete in which these points are overlooked.

DR. RANDALL suggested that the point touched upon by Dr. Osler,—the character of alcoholic beverage,—might be very important. In Vienna, among beer drinkers, he had found the fatty liver much more common than the cirrhotic; while in England, where much gin is drank, and he should suppose in Scandinavian countries, where they drink strong spirits altogether, the cirrhotic liver is doubtless comparatively frequent.

DR. MUSSER had recently had to go over the records of the Pathological Society, especially in liver diseases, and had found the total experience of different observers the same as Dr. Formad's, and also in those cases cirrhosis was caused not so much by heavy drinking, as persistent drinking of spirits on an empty stomach.

DR. FORMAD presented the

SAC OF AN EXTRAUTERINE PREGNANCY.

The woman from whom this was removed had not suspected that she was pregnant. She was in perfect health until twelve hours before death, when she was suddenly seized with excruciating pain in the left groin, rapidly followed by collapse. On opening the abdomen it was found to contain at least a gallon of partly clotted blood. About the middle of the Fallopian tube was the sac with a rent in its posterior wall. This sac was one inch in diameter and contained clotted blood and placental tissue. The uterus was twice its normal size. The fœtus was not found.

NEW YORK STATE MEDICAL ASSOCIATION.

Second Annual Meeting, held in the hall of the Murray Hill Hotel, New York, Nov. 17, 18, 19, and 20, 1885.

TUESDAY, NOVEMBER 17TH.—FIRST DAY.

MORNING SESSION.

THE Association was called to order at 9.30, A.M., by the President, DR. JOHN P. GRAY, of Utica.

The committee of arrangements reported that there were forty-nine scientific contributions, four addresses, and several contributions to the study of pneumonia, to be presented before the Society. The number of papers presented last year was fifty.

In the report of the council, it was recommended that papers, which are to appear in the volume of transactions of the Association, be not previously published in the medical journals.

THE TREASURER'S REPORT

showed the total receipts for the year to be $2461; balance in treasury from last year, $683. Deducting disbursements for the year, there remained a balance of $193. For the library fund, the surplus from anniversary subscriptions last year was $630, $315 of which was placed to the account of the building fund. Excluding disbursements, there remained in the library fund $31. $80 had been subscribed for a binding fund.

DR. L. D. FERGUSON, of Troy, offered some

AMENDMENTS TO THE BY-LAWS,

to be acted upon at the next annual meeting. They referred chiefly to the abolishment of the office of corresponding and statistical secretary, the appointment of a librarian by the council, and striking out certain words as to the qualifications of those becoming members.

THE PRESIDENT, DR. JOHN P. GRAY, then read his address, taking for his subject

THE RELATIONS OF THE STATE TO MEDICAL SCIENCE.

He reviewed the educational policy of the State of New York, which is confined principally to supervision of the common schools and of the normal schools in which teachers for the common schools are trained. The duties of the board of regents were briefly referred to. Law schools, medical schools, scientific schools, etc., are corporations sustained by private contributions or earnings, and are individual enterprises, receiving no grants from the State. He then asked the question, What is proper legislative interference with this class of institutions, which represent scientific education and research? That the State itself should undertake such education as a public measure and for public policy, constitutes a serious question in political economy, and for this State, for the present at least, that question has been answered adversely. Legislative control over the medical schools of this State is not demanded by public interest. It was not intended to dispute the power of the Legislature to regulate medical education and declare what shall constitute a doctor in medicine; but the fact was that the Legislature exercised its power only in the way of fostering, protecting, and advancing the interests of medical science up to giving the best opportunities to schools for attaining this end, and at the same time, as far as possible, allowing the individual entire freedom of special study and of the means for acquiring knowledge of medical science. The State had not, and could not, adopt any particular school or system of medicine as opposed to others. It is the part of wisdom to give the widest latitude to discussions wherever matters of opinion seem to be in conflict. The giving to the physician certain powers which the State had conferred upon him is the highest endorsement which the State can give the profession. The State has left the culture and development of medical science to the medical profession alone, and has granted the right to incorporate societies and associations in order to maintain its unity of work and for its elevation and progress.

With regard to the services of the medical profession to the public, little need be said. The physician's services are sought by the people in the same way that the services of the lawyer or other members of the community are sought.

The author then came to the matter of granting diplomas, and the control of this power by the State. His views were adverse to any such proposed change. The State did even attempt to regulate the compounding and sale of drugs and nostrums. As the State had nothing to do with the teaching in the schools, so it should have nothing to do with the examinations.

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What possible efficiency such a proposed Board of Examiners could have in benefiting medical science, the profession, and the people, did not appear. Such a change would transfer students who come to the medical colleges of New York from all over the country, and from foreign countries, to the schools of Boston, Philadelphia, etc. The schools have done excellent work in elevating the standard of medical study, and while there is room for further improvement, to seek it in the guardianship of the State is an error. It is true also that preliminary education should be better, and this demand also promises to be met as soon as the advance of the times will permit.

THE REPORTS OF THE DIFFERENT BRANCHES

of the State Association were then read, from which it appeared that a large number of papers on different subjects connected with medical science had been read, and other work had been performed. The President of the New York County Medical Association, Dr. C. A. Leale, also read the report of the annual labors of that Society.

ADDRESS IN STATE MEDICINE.

DR. ALFRED L. CARROLL, President of the Section in State Medicine, then read his address.

He reviewed briefly State medicine, or sanitary medicine as it existed in ancient times, and said that many excellent rules were in force among the Israelites which would be of practical utility in sanitary matters if adopted at present. State medicine, in its comprehensive sense, includes all the medical interests of the State. But after popular estimation, the term has a narrow significance; it is applied more especially to practical administration of sanitary science to the protection of public health. Even with this limited definition, preventive medicine has presented its claims with greater vigor than other specialties. Modern sanitation may be defined as applied physiology. The sanitarian should be primarily an accomplished physician. But he should superadd to his medical knowledge some theoretical, if not practical, knowledge of architecture and engineering. He should know how to detect defects therein, and be competent to suggest remedies to be carried out by the artisan.

Dr. Carroll then pointed out some of the conflicting opinions of sanitary men regarding what constitutes sanitary conditions. The superstructure of public sanitation has to be built upon the laws of personal hygiene. It follows that enlightenment in this direction must originate with physicians. As was the seed sown by medical schools, so would be the harvest of public health. How have these schools fulfilled this condition? The author said he would grant that many of them furnish the opportunities for a pupil having the means and ambition to make use of them to gain the necessary education; but what is needed is an enforced education in all important branches, not leaving their study optional with the student. The author named the studies and time required for study in force in England, and said that, while the work seems formidable, it will also be seen that the knowledge to be acquired is not more than every physician should have when he comes to discharge his duties to the public and to private patients. In his official relations, Dr. Carroll had had the opportunity to learn what are the acquirements of persons who seek positions on boards of health, and the answers by men graduated from regular medical schools were often absurdly erroneous. Now and then there were marked exceptions, even in remote country districts.

He thought a weakness in the State and local boards of New York existed in the short term of office, and in the time spent in inducting new men into strange duties. The need for a preliminary education and a higher and more thoroughly enforced medical education was pointed out.

NEWS ITEMS.

WASHINGTON.

(*From our Special Correspondent.*)

CHOLERA IN ITALY.—The U. S. Consul at Palermo, Italy, informed the Department of State, in a dispatch dated September 23, 1885, that the new cases and deaths from cholera had diminished since the 19th of September, the cases and deaths on that day being 258 and 185 respectively. The new cases and deaths on the 22d were 190 and 96 respectively. Up to the 23d, there had been 1279 cases, and 780 deaths.

Adverting to previous correspondence on the subject, he says, that it may be proper to say now, that the authorities, at his request, furnish him each morning with a statement of the cases and deaths of the preceding day, and that he is keeping a daily record of the thermometer and barometer, as well as of other matters which he deems of importance in connection with the epidemic, and which will be submitted in a general report upon the termination of the epidemic.

Under date of October 12, he further says, that since his last dispatch there have been 2658 new cases of cholera, and 1313 more deaths therefrom, in Palermo, making the total number of cases and deaths thus far 3937 and 2093, respectively.

The new cases and deaths of the previous day, as officially reported to him, were 110 and 51, respectively. In this connection it may be proper to state, he says, that the disease appears to have been decreasing for some time, and that if the cool and rainy weather which has obtained for some days should continue, it will disappear for the present. It is estimated that from sixty to seventy thousand people left the city since the beginning of the epidemic.

As an example of the difficulties experienced by persons leaving the city, he says that it may be of interest to state that Mr. Ignacio Florio, upon the appearance of the scourge, proceeded to his wine establishment in Marsala, as a precaution. He reached the place with great difficulty, narrowly escaping death at the hands of the infuriated country people en route. Upon reaching the outskirts of Marsala, he was met by the authorities and informed that he could not enter. It was, however, finally agreed that he should be allowed to enter his own grounds and kept therein, under guard, for a period of fifteen days. The Consul says, that as to wealth and position, Mr. Florio holds about the same relation to Palermo that Mr. W. W. Corcoran, one of our wealthiest and most prominent citizens, does to the people of Washington.

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The United States Consul at Algiers, Africa, transmits, under date of October, 1885, a copy of a decree received from the Governor-General of Algeria, dated October 12, 1885, concerning the cessation of quarantine impositions and observances, and medical visits aboard all vessels coming from any French ports in the Mediterranean. He reports the health of Algiers and the districts as excellent, no cases of cholera or contagious disease of any kind having been reported during the summer.

The following is a verbatim translation of the decree:

"*Government-General of Algiera, Decree.*

Art. I.—"All ships coming from French ports of the Mediterranean, and arriving in Algeria with a clean bill of health, will be immediately admitted to the port without being submitted to the medical visit."

Art. II.—"The prefects of the three provinces and the maritime sanitary service, are charged with the execution of this present decree."

INSPECTION ON THE CANADIAN FRONTIER.—Surgeon Henry W. Austin, of the United States Marine-Hospital Service, who is now in charge of the inspection service now in operation on the Canadian frontier of the United States, for the prevention of the introduction of smallpox into this country, has made the following report to the Supervising Surgeon-General, dated Burlington, Vermont, November 10.

I have the honor to report that I completed the inspection of all Vermont Stations November 6th, and then returned to Burlington. Considerable complaint was heard that only a part of the Montreal baggage was disinfected at our station, and that it must be done at the points of destination. To satisfy local and State health officers, and in order that every possible precaution might be taken, I issued an order to all Vermont inspectors, and all inspectors on duty at Rouse's Point, thoroughly to disinfect all Montreal baggage, and this is now being carried out. Each station has a well-equipped fumigation building, where the baggage is opened and hung up on hooks, and allowed to remain in sulphurous acid gas for from four to twelve hours, according to the nature of the articles to be disinfected. Three pounds of sulphur are burned in one thousand cubic feet of space. The baggage is then carefully put back into the trunks, which are then checked and sent to their destination. Very few certificates of vaccination are at present accepted by our inspectors, but the arm is examined instead, and all are vaccinated when considered necessary. Large quantities of freight, consisting of household goods, are disinfected at each station. This is generally done in a freight car which is suitable for the purpose.

To illustrate the faithfulness and thoroughness with which the work is done aboard the trains, and the various means resorted to by certain emigrants, I will cite a few incidents. At Ogdensburgh, New York, an Indian of some Canadian tribe, was met on the ferry by our inspector, and he was asked the question whether he had been vaccinated. He replied, "Indian had not been vaccinated, and not propose to be." He was informed that he would have to return unless he allowed the inspector to vaccinate him. He reluctantly consented, and when the vessel arrived at port it was found that he had baggage that required disinfection. To this he strongly objected, but rather than have it returned, gave it over to the inspector, who put it in the fumigation building. He waited and watched the process with great interest, and as soon as the door was opened plunged into the room where the smoke was so dense that nothing could be seen, but returned in a second (well fumigated), but nearly suffocatd. He finally received his baggage and started. He immediately got drunk and was put in the lock-up by the city authorities, and was returned to Canada the next morning, he being without means of support.

On one of the trains a woman slipped by the inspector and entered the water closet. She was allowed to remain there two hours, and then a brakeman rapped for her to come out. She refused to do so, and had to be taken out by force. She was vaccinated, and allowed to pass. Passengers will mutilate their own arms, and produce the wound as evidence of vaccination. They have been detected in doing this, but it does not often succeed. They frequently wipe off the virus after they have been vaccinated, and always, when they are discovered, must submit to revaccination. On certain railroads, twenty per cent. of all passengers are vaccinated.

The fumigation of baggage is performed by the baggage-masters of the different roads, as they requested that they be permitted to do the work, as they were responsible for the baggage, and would be obliged to oversee the work and look after checks and shipping. This, of course, is done under the direction of the sanitary inspectors, but we are obliged to pay the men for this work, and they are subject to our orders. In this connection I would like to inform you that the railroad authorities of the Central Vermont, the Grand Trunk, the South Eastern, and the Passumpsic, have given us every facility to inspect passengers, baggage, and freight, and have assisted and supported our inspectors by every means in their power, and deserve the thanks of the Service and the community generally.

The inspection of trains is a difficult work, but it is being done as thoroughly as it is possible to do it. The inspectors are doing their work well, as I believe the result will prove. I have been with each inspector in making his trip to Canada and return, and am satisfied that all understand their duties, and are doing them well, and satisfactorily to all intelligent and unprejudiced persons.

PROFESSOR VIRCHOW ON THE CONGRESS DISSENSIONS AND THE AMERICAN MEDICAL ASSOCIATION.—At the recent celebration of the Berlin Medical Society, of the 25th anniversary of its organization, the President, Professor Virchow, in the course of his address took occasion to speak of the aims and scope of the Society, and in this connection referred to those of the American Medical Association, and its relation to the present deplorable condition of the International Congress organization.

He said: I have always held the opinion, and as early as the reform movements of 1848 gave expression to it, that if physicians wished to occupy an influential position, an association, of all things, was most necessary, in which they could, alone, find protection, and which could be made effectual by the energetic coöperation of its members. It has been recently attempted to extend

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still further this effort at organization, so as to include all Germany, and thus to increase the influence of the profession. But I do not see now that anything is to be accomplished in this way. I think much more will be accomplished if the societies are maintained which naturally exist, and which local conditions demand, provided these are sufficiently strong each to say, we are the representatives of the entire body of physicians of our locality. The larger we grow, the more influential will this Society become, so that, at least for Berlin, it will prove that it is representative. We do not desire to be recognized as the representatives of all Germany, we do not wish to go beyond our own locality, but we desire to set an example and to furnish strong testimony of that which we represent in our own proceedings.

Of what may result when these aims are lost sight of, we have at this moment a mournful example in America. You know your delegates to the International Medical Congress held last year at Copenhagen, were instructed to invite the Congress to hold its next session at Berlin. We were outvoted, I am sorry to say, by the coöperation of our German colleagues. The Congress decided to go to America. What is the result? A situation which at this moment makes it extremely dubious whether an International Congress in America is possible. While the individual societies of that country, to some extent like ours, consider science their shield and their defence, and have endeavored to create an organization in which the eminent representatives of American medicine shall also appear as the representatives of the coming Congress—the American Medical Association, a vast society of practising physicians, extending throughout the land, usurps the control of the organization of the next session of the Congress, and creates such confusion that, I am informed, verbally and by letter, that no one at present is able to see his way out of the difficulty. Now, how did this dilemma originate? In the fact that the American Medical Association has set up a Code of Ethics, so called, and that with this code of professional ethics the admission to the Association is so broadly extended that entrance is free to all manner of dubious individuals. Hence has it resulted that, instead of eminence, mediocrity has come to the front, and that this Association, where the code is concerned, concerns itself more with forms than with principles.

May I not then well say that we are proud of our organization, by virtue of the care which we exercise in electing new members, and that we have, in this way especially, guarded against the necessity of forming a code of ethics, which every upright physician should in fact carry in his own bosom, and if he transgresses it, he should be restrained both by the example and admonition of his colleagues? This has been our conviction, thus have we regarded the Association, so do we regard the great associations of physicians. With us, no necessity has been found to establish special codes, or protective measures to secure us against the actions of dishonorable associates. Our unwritten code of ethics, without extreme measures, has become firm, and it behooves us to make it firmer and firmer, and from this it will result that we will be independent of the State and Government, and go through life as free men, and representatives, not only of a "craft," as the law designates us, but of a free art to which we have elevated our craft.

THE LACKAWANNA COUNTY (PA.) MEDICAL SOCIETY AND THE CONGRESS ORGANIZATION. — At the stated monthly meeting of the Lackawanna County Medical Society, held on November 10th, attention was called to a circular, which had been widely distributed through the State, soliciting support for the action of the New Orleans meeting of the American Medical Association regarding the organization of the Washington meeting of the International Medical Congress. Resolutions were then adopted condemnatory of this action.

THE AMERICAN PUBLIC HEALTH ASSOCIATION will hold its thirteenth annual meeting in the city of Washington, beginning on Tuesday, December 8, at Willard's Hotel Hall.

The Executive Committee have selected the following topics for consideration at said meeting:

1. *The best form in which the Results of Registration of Diseases and Deaths can be given to the Public, in Weekly, Monthly, and Annual Reports.*
2. *The Proper Organization of Health Boards and Local Sanitary Service.*
3. *Recent Sanitary Experiences in Connection with the Exclusion and Suppression of Epidemic Disease.*

Also, the *Lomb Prize Essays.*

1. Healthy Homes and Foods for the Working-classes.
2. The Sanitary Conditions and Necessities of School-houses and School-life.
3. Disinfection and Individual Prophylaxis against Infectious Diseases.
4. The Preventable Causes of Disease, Injury, and Death in American Manufactories and Workshops, and the Best Means and Appliances for Preventing and Avoiding Them.

In addition to other able and comprehensive papers expected to be presented at this meeting, the Secretary has received notice of the following from the able and well-known writers named below:

Forms of Tables for Vital Statistics. By Dr. J. S. Billings, LL.D., U. S. A., Washington, D. C.

Sanitary and Statistical Nomenclature. By Dr. E. M. Hunt, Secretary State Board of Health, Trenton, N. J.

Statistics of Consumption in Rhode Island for a Quarter of a Century. By Dr. Charles H. Fisher, Secretary State Board of Health, Providence, R. I.

The German System of Physical Training. By Dr. E. M. Hartwell, Johns Hopkins University, Baltimore, Md.

School Hygiene, Public and Private. By Dr. William Oscar Thrailkill, of San Francisco, Cal.

Sanitary Protection of New Orleans, Municipal and Maritime. By Dr. Joseph Holt, President State Board of Health, New Orleans, La.

Maritime Sanitation. By Dr. S. T. Armstrong, U. S. M. H. S., Memphis, Tenn.

Smallpox in Canada, and the Methods of Dealing with it in the Different Provinces. By Dr. P. H. Bryce, Secretary Provincial Board of Health, Toronto, Ont.

The Debit and Credit Account of the Plymouth Epi-

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demic. By Dr. Benj. Lee, Secretary State Board of Health, Philadelphia, Pa.

An Epidemic of Typhoid Fever. By Dr. C. A. Lindsley, Secretary State Board of Health, New Haven, Conn.

Experiences in Disinfecting Sewers. By Dr. O. W. Wight, Health Officer, Detroit, Mich.

Progress of Health Work in Kentucky. By Dr. J. N. McCormick, Secretary State Board of Health, Bowling Green, Ky.

Observation on the Cape Fear River Water as a Source of Water-supply: A Study into the Character of Southern River Water. By Dr. Thomas F. Wood, Secretary State Board of Health, Wilmington, N. C.

The Virus of Hog Cholera. By Dr. D. E. Salmon, D.V.S., of Wilmington, D. C.

Hygiene of the Dwelling. By George N. Bell, C.E., of Newport, R. I.

The Proper Disposal of the Dead. By Dr. John Morris, of Baltimore, Md.

The Relations between Microörganisms and Cells. By Dr. A. C. Bernays, St. Louis, Mo.

The Layman in Sanitation. By Dr. W. H. Watkins, of New Orleans, La.

Who is Responsible for the Iniquities of the Third and Fourth Generations, and How Shall They be Avoided? By Dr. R. Harvey Reed, Secretary State Sanitary Association, Mansfield, Ohio.

Carelessness the Cause of Disease. By Dr. W. John Harris, of St. Louis, Mo.

The Committee on Disinfectants will present quite a voluminous report (printed), embodying their investigations and conclusions on the subject of disinfection and disinfectants. This report will be one of great public interest, and will probably call forth much interesting discussion.

The headquarters of the Officers and Committees will be at Willard's Hotel.

Applications for certificates to enable members and those intending to become members, and their families, to obtain the reduced rates offered by the various railroad lines to Washington, should be made without delay, to the Committee of Arrangements, J. C. McGinn, Secretary, Washington, D. C.

The Committee of Arrangements will issue a circular, giving full information regarding reduced railroad fare, hotel rates, etc., in ample season before the meeting.

Reports received from various quarters indicate that the forthcoming meeting will be largely attended, and one of national interest and importance. The subject of the restriction and management of epidemics at the present time is of sufficient importance alone to bring together a large and able body of sanitarians.

PROPOSED PERIODICAL CONGRESS OF RUSSIAN SURGEONS.—Professor Skilasovski, of Moscow, writes to the *Vratch*, urging the importance of regular meetings of Russian surgeons every two or three years, to be held alternately in St. Petersburg and Moscow, for the purpose of keeping the knowledge of provincial surgeons up to date.—*The British Medical Journal*, October 17, 1885.

THE WILLIAM F. JENKS'S PRIZE.—The widow of Dr. William F. Jenks has presented, as a memorial of her husband, to the College of Physicians of Philadelphia, in trust, five thousand dollars, the interest of which is to be triennially awarded for the best essay offered in competition upon some subject connected with obstetrics and gynecology. The prize is to be known as the William F. Jenks's Prize.

THE PUBLICATIONS OF THE GERMAN IMPERIAL BOARD OF HEALTH.—The publications of the Imperial Board of Health of Germany now take place on a new system. Every week there is issued a journal containing sanitary information and news, whilst from time to time there are to be published in supplementary quartos the scientific memoirs which represent the laboratory work of the institution. Hitherto these have appeared in completed volumes at intervals of about two years. There has already appeared the first instalment of the new issue, "Arbeiten aus dem Kaiserlichen Gesundheitsamte," Erster Band, Erstes und Zweites Heft. Preis 6m. It contains (1) a report upon the Condition of the Berlin Water-supply, edited by Dr. G. Wolffhügel; (2) Methods of Milk Analysis; (3 and 4) Experimental Researches, etc., on Swine Fever and Preventive Inoculation, by Drs. Lœffler and Schütz; and (5) the Vaccination Statistics for Germany for 1882.

THE LATE DR. THUILLIER.—The remains of the late Dr. Thuillier, member of the French Cholera Mission to Egypt, where he fell a victim to that disease in 1883, arrived at Marseilles on the 7th of September, and were immediately forwarded to Amiens, his native town, where they were interred at the expense of the State on the 14th instant. The funeral ceremony took place in the presence of the Minister of Public Instruction, the Prefect of the Somme, the Mayor of Amiens, and of M. Pasteur, who pronounced an oration over his late pupil and friend.—*The Lancet.*

PROFESSOR VIRCHOW ON ACCLIMATIZATION.—At the recent Congress of German Naturalists and Physicians held at Strasburg, Professor Virchow gave an address on acclimatization. He said that he would not discuss the political question as to the propriety of Germany forming colonies, but would point out how wide was the scope for scientific investigation into the subject, an inquiry which might influence State measures. He drew attention to the Amsterdam Congress of Colonial Medicine last year as evidence of the growing desire to learn more concerning the conditions of life and the changes experienced in the human organism under altered climatic influences. When an individual goes to a very different climate he is mostly at first uncomfortable, and after some weeks finds his organism regain its equilibrium; he has accommodated himself to new conditions; his organs have endured material change; he suffers from climatic indisposition or disease. Although the French and English have published much upon the subject, yet researches upon the special changes that precede the onset of disease are entirely wanting. On the other hand, the clinical study of tropical disease has been very much advanced. Whoever studies acclimatization must do so with a view to establish certain geographical limits of ethnological provinces analogous to botanical and zoölogical provinces. The Professor next proceeded to inquire how far the white races are

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known to be capable of acclimatization, and showed that the Semitic are much more capable of it than the Aryan races; and amongst Aryans, the southerners (Portuguese, Spanish, Maltese, etc.) are more so than the northerners. Mixed races with strong Semitic admixture are more easily acclimatized than the pure Aryan stock. These races have developed in North America, the French in Canada, the Yankees in the United States, the English in Australia, but not in its northern, hotter parts. All these inhabit latitudes not far removed from the European, and yet they often become sterile, and the population decreases. Individuals born in the new country of the immigrant population never exceed three generations—for example, the English in India; and in spite of attempts to consolidate the Aryan colonization of the Indies by means of sanitary measures, it does not succeed. Medical officers of the navy and merchant service, and others, should study these conditions in the light of physiology. What is it that is most at fault? Is tropical anæmia a diminished formation or an increased destruction of blood? Tropical anæmia is found not only in regions where malaria, pernicious relapsing fever, dysentery, or yellow fever prevails, but it occurs apart from these diseases. This increase in blood disintegration excites a great tendency to diseases of the liver, and the liver is the main point of attack for diseases of acclimatization. To investigate the particular kind of disorders induced by acclimatization in individual organs is, Professor Virchow said, a paramount duty imposed upon German science. It does not depend upon special examples, but on the scientific determination of the conditions of existence for the vulnerable race of emigrants.—*Lancet*, Oct. 10, 1885.

OBITUARY RECORD.—DR. A. T. KEYT, one of the most prominent and esteemed physicians of Cincinnati, Ohio, died, at his home, November 9, 1885.

Dr. Keyt possessed great mechanical skill and was the inventor of a cardio-sphygmograph, with which, by the study of the heart and pulse, he obtained distinguished recognition both in this country and Europe.

NOTES AND QUERIES.

RETARDED DEVELOPMENT OF THE VACCINE PUSTULE.

To the Editor of THE MEDICAL NEWS.

SIR: I send you a case of retarded appearance of the vaccine pustule:

S. G., twenty-five years of age, was vaccinated on October 9, 1885. The matter used was animal virus. At the end of twelve days, there being no sign of the vaccination taking, she was re-vaccinated on the same arm, with the result of the first point of vaccination taking in a very marked manner, while the point of second vaccination healed up as a simple scratch.

Should you consider the above account of enough importance to publish, I shall be much pleased.

Resp. yours,
E. J. MORRIS.

PHILADELPHIA, 2203 ST. JAMES PLACE,
November 12, 1885.

BINAURAL STETHOSCOPES.

SPEAKING of an improved form of binaural stethoscope, Dr. W. A. Edwards says, in THE MEDICAL NEWS for November 7: "That binaural stethoscopes have not received from American physicians the attention that they demand is in part due, I think," etc. This sounds rather strangely, in view of the fact that the binaural stethoscope is the invention of an American physician; and was in use in the United States for a long time before it became known elsewhere, and, even now, is by no means so commonly met with in Europe as it is in this country. F. A. CASTLE.

NEW YORK, 55 EAST FIFTY-SECOND STREET.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, FROM NOVEMBER 10 TO NOVEMBER 16, 1885.

BAILEY, E. L., *Colonel and Surgeon.*—Relieved from duty as Attending Surgeon, San Francisco, California, and ordered for duty as Medical Director, Division of the Pacific and Department of California.—*S. O. 260, A. G. O.*, November 11, 1885.

NORRIS, BASIL, *Lieutenant-Colonel and Surgeon.*—Ordered for duty as Medical Director, Department of the Columbia.—*S. O. 260, A. G. O.*, November 11, 1885.

MCKEE, J. C., *Major and Surgeon.*—Ordered for duty as Attending Surgeon and Examiner of Recruits, Boston, Massachusetts.—*S. O. 260, A. G. O.*, November 11, 1885.

VOLLUM, E. P., *Lieutenant-Colonel and Surgeon.*—Ordered for duty as Medical Director, Department of Texas.—*S. O. 260, A. G. O.*, November 11, 1885.

SMITH, J. R., *Lieutenant-Colonel and Surgeon.*—Ordered for duty as Attending Surgeon, New York City.—*S. O. 260, A. G. O.*, November 11, 1885.

ALEXANDER, R. H., *Lieutenant-Colonel and Surgeon.*—Ordered for duty as Medical Director, Department of Arizona.—*S. O. 260, A. G. O.*, November 11, 1885.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY FOR THE WEEK ENDING NOVEMBER 14, 1885.

KINDLEBERGER, DAVID, *Medical Director.*—Granted leave of absence to June 30, 1886, with permission to leave the United States.

WIEBER, F. W. F., *Assistant Surgeon.*—To remain on Receiving Ship "Vermont" until May 15, 1885.

SAYRE, J. S., *Assistant Surgeon.*—Detached from Naval Hospital, Mare Island, and ordered to the "Omaha."

DIXON, W. S., *Surgeon.*—Detached from the Coast Survey Steamer "Hassler" upon reporting of his relief Passed Assistant Surgeon D. O. Lewis, and wait orders.

LEWIS, D. O., *Passed Assistant Surgeon.*—Detached from Naval Rendezvous, San Francisco, and ordered to relieve W. S. Dixon, Steamer "Hassler."

DUNGAN, J. S., *Medical Director.*—Ordered to Naval Rendezvous, San Francisco, to relieve Passed Assistant Surgeon D. O. Lewis.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE-HOSPITAL SERVICE, FOR THE WEEK ENDING NOVEMBER 14, 1885.

URQUHART, F. M., *Passed Assistant Surgeon.*—Upon closure of Cape Charles Quarantine Station, to proceed to Norfolk, Virginia, for duty. November 5, 1885.

BATTLE, K. P., *Assistant Surgeon.*—Resignation accepted, as tendered, by the Secretary of the Treasury, to take effect November 25, 1885. November 3, 1885.

WHEELER, W. A., *Passed Assistant Surgeon.*—To proceed to Ontario, Canada, on special duty, November 11, 1885.

URQUHART, F. M., *Passed Assistant Surgeon.*—To proceed to Baltimore, Maryland, with Steamer "Manhattan," and then rejoin station, November 12, 1885.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLVII. SATURDAY, NOVEMBER 28, 1885. No. 22

ORIGINAL LECTURES.

CAISSON DISEASE.

A Clinical Lecture delivered at the Pennsylvania Hospital, November 24, 1885.

BY ARTHUR V. MEIGS, M.D.,
PHYSICIAN TO THE HOSPITAL.

(Reported by Charles Baum, M.D.)

GENTLEMEN: The patient I shall now bring before you is suffering with a disease which, until within a few years, not only was unknown, but did not exist. He has caisson disease, which is a term we use to express the train of symptoms produced by working in compressed air.

Of late years, in building the piers and abutments of bridges, and in digging tunnels deep down below water-level, engineers have made use of a contrivance called a caisson, which is in effect nothing but a diving-bell. An air-tight iron shell is constructed of the size and shape of the pier or abutment to be built. This shell may be about nine feet in height, and is made very strong with stays and braces of wood and iron, and it is, of course, open at the bottom. On the top is laid the masonry, the whole surface being covered, except small spaces, which, as the pile of masonry becomes higher and higher, assume the appearance of wells, and are technically termed shafts. The object of a contrivance of this kind is to render it possible to carry the foundations of a bridge through the soft and unstable material which often forms the bottoms of rivers, down to rock or other suitable bed. This, you can readily understand, is easily accomplished by sinking the caisson with its superincumbent load of masonry to the bottom of the river, preventing the water's filling the chamber by keeping it constantly pumped full of air.

When once the structure rests upon the bed of the river, men in the air-chamber dig away the sand or mud underneath, and it is removed by the suction of sand-pumps and discharged through the shafts at the top. The means of entrance to and exit from the air-chamber is through what are called air-locks, which are air-tight iron chambers, placed either at the top or bottom of the shafts. These chambers have two doors, one communicating with the outer air, and the other with the air-chamber of the caisson, and these are of such size that the workmen and building materials can pass through. There are also pipes provided with stop-cocks, one communicating with the air-chamber, and the other with the outer air, by means of which the air-pressure can be made to equal that which exists within the chamber or that outside. When a man wishes to enter the air-chamber, he goes to the air-lock, and, the door into the outer air being open and that communicating with the chamber closed, he goes into the lock, and, closing the door behind him (both doors being now shut), he turns the stop-cock and allows the compressed air from the air-chamber of the caisson to rush in until the pressure within the lock is equal to that in the chamber; then it is only necessary to open the door of entrance to the chamber to be able to go in. In coming out the process is simply reversed.

There has been published within a few years a *History of the St. Louis Bridge*, by Prof. C. M. Woodward, which contains many interesting facts connected with the results of exposure to compressed air upon the human economy. Some of the supports of this immense bridge across the Mississippi River, the building of which was one of the greatest feats of modern engineering, are carried down to a greater depth below the water-level than are those of any other bridge in the world. The experience gained in the building of this bridge, the piers of which were sunk so deep, being about one hundred feet below the surface of the water when the river was at its ordinary level, was very extensive and valuable.

When a man goes into the air-lock to gain admission to the air-chamber of the caisson, and the compressed air from the chamber is allowed to rush in, as the air-pressure increases there is often produced violent pain in the ears with bleeding from the nose or even from the lungs. If the pain in the ears is not relieved by blowing the nose, or taking a swallow of water and thus inflating the middle ear through the Eustachian tube to equalize the pressure upon the two sides of the drum membrane, such a man should beat a retreat, and not expose himself to further increasing air-pressure. These are the worst effects produced while going into the compressed air; and while in, and even when working in the chamber exposed to the full effects of the increased air-pressure, no dangerous effects are experienced. It is after coming out from the caisson that the effects are produced.

The symptoms, as described by Dr. A. H. Smith, in Pepper's *System of Medicine* (vol. iii. p. 854), are, "in the order of their frequency, intense neuralgic pain in one or more of the extremities, and sometimes in the trunk; epigastric pain; nausea and vomiting; more or less complete paralysis, which may be local or general; headache; vertigo; and coma." The disease is usually very sudden in its onset, men having often been stricken down with paralysis while mounting the stairs after coming out from the air-chamber, or while walking to their homes. Dr. Smith had charge of the health of the men employed in the caisson-work at the building of the East River Bridge, in New York. The piers of this bridge were not carried down to so great a depth as were those of the St. Louis Bridge, and only three men died from exposure during its construction. Dr. Smith states that heavy men with a tendency to corpulency were much more likely to be unfavorably affected than were lank and spare men. Prof. Woodward (*loc. cit.*, page 257) states that about 600 men were employed in

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the air-chambers of the St. Louis Bridge, and of these 119 are known to have been more or less seriously affected with the disease, 14 died, and 2 were crippled. "Two-thirds of those taken sick at the east pier were attacked immediately on coming out, either on the stairs or as soon as the top was reached. In other cases the men were generally attacked within half an hour. . . . As a rule, chance visitors had no personal sufferings to report beyond a 'frightful pain' in their ears while making the first passage of the air-lock.

"It must not be forgotten that *no one was attacked while under pressure*, nor while pressure was being applied; the fatal moment was when the pressure was removed, or within half an hour from leaving the air-chamber" (*loc. cit.*, pp. 257 and 261).

Post-mortem examinations were made of the bodies of quite a number of men who died of this disease, and the most constant lesions found were intense congestion of the brain and spinal cord and of their membranes, and often some arachnoid effusion. There were also found in some instances hemorrhages in the kidneys, and sometimes injected areas, or even patches of ecchymosis in the stomach, intestines, and bladder.

There have been various explanations offered of the mode of action of compressed air in producing all these effects upon the human economy. Prof. L. Bauer (*St. Louis Medical and Surgical Journal*, new series, vol. vii. pp. 234–245) suggests that hyperoxygenation and increased waste of the organic structures take place in the body while it is in the compressed air, and that, at the same time, the blood necessarily carries more carbonic acid and other effete material. So long as the person continues in the compressed air, the hyperoxygenation goes on, and no ill-effects are experienced; but, when the pressure is removed, the hyperoxygenation immediately ceases, and the accumulation of waste materials acts as a poison to the system.

Dr. A. H. Smith thinks the deleterious effects are due to the changed condition of the circulation, the blood being driven, while the subject is in the caisson, from the surface toward the interior of the body where the pressure is less, and that it is forced from all the more compressible tissues into the more solid ones, and particularly into bony cavities. When the pressure is removed, the blood rushes toward the surface, and into all the vessels which have been emptied by the pressure until they are so distended that their walls become paralyzed. The vessels of the brain and spinal cord, which lie in bony cavities, are naturally the most affected, and they are so distended that "the vaso-motor system becomes out of use."

Dr. Jaminet, who had charge of the men who worked in the caissons at St. Louis, attributed the disease to the increased and rapid tissue-waste which, he said, took place while the men were subjected to the pressure. He found that the men breathed twenty-one times a minute, instead of eighteen, as is natural, and that an increased amount of urine was passed while they were in the compressed air, and that it contained an abnormally large amount of urea. They sweated, too, when the temperature was lower than that at which men will usually sweat. Where men work under a pressure of four and a half atmospheres, as was the case at St. Louis, he said that at each breath the man took four and a half times as much oxygen into the lungs as when subjected to the usual pressure, and consequently, he argued, the body-waste went on four times as fast.

François and Paul Bert are quoted by Dr. A. H. Smith (*loc. cit.*, p. 855) as suggesting that the morbid phenomena may be due to the liberation of air or nitrogen in the vessels, which had been absorbed while under pressure, the bubbles of gas thus liberated obstructing the bloodvessels.

C. M. Woodward (*loc. cit.*, p. 258) expresses the opinion, "that *the vital energies of the men taken sick were to a great extent paralyzed by loss of heat.*" This loss was due:

"1. To the expansion of the air in the lock, while coming out.

"2. To the expansion of the free gases and vapors within the body, when relieved of the abnormal pressure.

"3. To the liberation of the gases held in solution by the liquids of the body.

"4. To the severe physical effort of climbing the stairs."

He lays great stress upon the fact, that all the men felt very cold upon coming out of the compressed air, and says, that, although, while in the chamber, everyone had a feeling of exhilaration, upon coming out "the increased vital energy gave place to a very low ebb of vitality and an all-pervading sense of frigid helplessness."

It would seem likely that the real state of the case is, that the effects produced are due, not to any one of the causes suggested alone, but to all of them acting together, or to varying combinations of two or more of them. The very name which has been given the affection indicates that it is only a term which has been used for convenience to express a varied and complicated train of symptoms, which probably may be due to a great variety of causes. It appears to be certain, that there is, while under increased air pressure and afterwards, great loss of body heat, increased tissue-waste, and driving of the blood from the surface toward the interior, and subsequent rapid expansion of all the liquids and gases in the body, those within the bony cavities having the least favorable opportunity for recovering their stable equilibrium. These causes must act to different degrees and in different ways to produce the variety of effects that have resulted in the men who have at different times been affected.

There is a story told in the St. Louis Bridge history, that upon one occasion a visitor opened a brandy flask while in the chamber, and then, after securely screwing on the lid, thought no more of it until he got back to the outer air, when his flask exploded with considerable violence. It is also said, that if the Eustachian tubes are obstructed, rupture of the drum membrane is certain to take place upon going into the compressed air, and this has occurred. No more telling story could be told than that of the brandy flask, to show what must occur with every liquid and gas contained within the human economy upon coming out from the compressed air-chamber, and when it is remembered that sometimes as little as three to five minutes only were allowed to pass between the time when men were in the air-chamber, subjected to a pressure of four and a half at-

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mospheres, and their coming out to the usual pressure, the wonder is, not that so many were sick in consequence, but that any escaped unharmed.

The patient I show you is suffering with the disease in one of its milder forms. He is twenty-eight years of age, and, as you see, is a strong and muscular-looking man. He was employed at the bridge which the Baltimore and Ohio Railroad Company are building below Gray's Ferry. What the depth is at which they are now working I do not know, but this man labored in the caisson only during one shift, and he tells us that they are now engaged in concreting, which shows that the work must be near its completion, for concrete is only used after the caisson reaches the bed upon which it is to rest; first to make a level surface for it to rest upon, and lastly to fill the caisson itself.

This patient went to work at four in the afternoon and labored until twelve at night, having had a rest at the end of the first four hours, when all the men on the shift came out of the chamber to eat lunch. He had never done any work of the kind before, and after coming out from the caisson at first felt no ill-effects. At this bridge the air-locks are placed at the top of the shafts, and the men climb out by means of ladders; the ascent is made, therefore, while still in compressed air and not after coming out, as was the case at the St. Louis Bridge. This man walked to his boarding-house, which was about half a mile away, and as he climbed the stairs to go to bed he felt some pain in the calves of the legs. He was hardly in bed, however, and had not even slept, when he was seized with pains through and above and below the knees, which were so violent that he was forced to jump from bed. The greater part of the rest of the night he passed in rubbing his legs and limping about the room, the pain being so severe that he could not lie still for a moment. Thirty-six hours later he came to the hospital, and was admitted the day before yesterday, so it is now three days and a half since he was attacked, and the attack came on, as I have told you it usually does, within a short time after leaving the compressed air-chamber. This man is only now beginning to have any comfortable degree of freedom from pain. When he was first admitted he was given, as is the custom in the ward with all patients who are not too ill, a warm bath, and he says it gave him great relief. An examination of the urine showed that it contained a very small amount of albumen but no tube-casts could be found.[1]

In none of the accounts of this disease that I have been able to obtain, is any mention made of the urine having been examined for albumen, and this is very strange, for *à priori* there seems every reason to expect that it would often be present, for there have been found, at some of the autopsies made, hemorrhages in the kidneys, and all authorities speak of the high degree of congestion of the internal organs that exists.

The prognosis in this disease should be a guarded one, if the patient manifests any of the more severe symptoms. It can probably be said, however, that any one who is not severely affected within twenty-four hours after exposure to the cause of the disease is safe, for in all the men attacked the symptoms seem to have reached their maximum within that length of time. By this statement is meant the primary symptoms, for it goes without saying that injury of the brain and spinal cord might set up inflammatory conditions which would take much longer to limit themselves; witness the fact that one of the men stricken with paralysis at St. Louis, lingered for nearly a year, to die finally.

The treatment which should receive our closest study and promises most fairly in the results we may hope to attain, is to be sought for in the direction of preventive medicine. No more striking exemplification of the truth of this statement could be desired, than what I can tell you in connection with the building of the St. Louis Bridge. In building the east pier thirteen of the men employed died; in building the east abutment, which was sunk five feet deeper than the east pier, being carried down one hundred and twenty-seven feet below high water mark, only one man died. The causes of this great discrepancy in mortality are not far to seek; in building the east pier, the men after coming from the air-chamber found themselves at the bottom of the shaft, in the open air, chilled to the bone from having come out of the compressed air, and exhausted with having worked under the unnatural pressure, with about one hundred and ninety steps to climb before they arrived at the surface of the earth. When the east abutment was constructed, a steam elevator was used to transport the men from the bottom of the shaft to the top, and at this time, too, the physician in charge had had further opportunity to study the effects of compressed air, and stringent regulations were made to oblige the men to keep themselves in the best possible condition.

All the men who applied for employment at the caisson work were examined, and those found to have any physical disability were rejected. Each man was made to lie down upon a bed for half an hour after coming out of the caisson, before he was allowed to go home. Beef tea was served to them, and no man was allowed to go to work except he had had a good meal within an hour or two before. No ill-nourished or poorly clad men were employed. Dr. Jaminet insisted very strongly upon the very great importance of taking food shortly before going to work in the caisson. The effects of these hygienic regulations and the use of the elevator, which probably did more to save the men than any other one thing, were abundantly demonstrated by the results, for, as already stated, thirteen men died during the construction of the east pier, while but one life was lost during that of the east abutment, which was sunk five feet deeper.

Prof. Woodward suggests the following rules (*loc. cit.*, p. 262) as proper for the management of men working in compressed air.

"1. Men must be sound and well fed. They should eat a hearty meal about one hour before entering the air-chamber.

"2. The periods of labor should be diminished as the pressure increases; say, to two watches of two hours each per day under a pressure of four atmospheres.

"3. Men should have perfect rest and warmth for half an hour after coming out. This includes the use of an elevator.

[1] A few days later the albumen had disappeared from the urine, and the patient was discharged declaring himself well.

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"4. The pressure in the air-lock should not be increased more than six pounds per minute, nor diminished more than four pounds per minute. If, when the pressure is increasing, any one has pain in his ears which cannot be removed by blowing his nose, or by swallowing water, the inlet of air should be stopped and the man sent out.

"5. Every man, just *before leaving the air-chamber*, should be required to swallow about a pint of hot coffee, tea, or soup.

"6. There should be separate air-locks for *entrance* and for *exit*. The *exit* air-lock should be provided with heating apparatus, which should maintain a proper temperature and furnish direct heat to the bodies of the men."

The treatment of the disease itself must be varied as one or other of its phases is presented. The pains can be best relieved by the use of morphia, and Dr. Smith recommends its free use; half a grain to be given at first and a quarter of a grain every hour afterwards until relief is obtained. Epigastric pain can usually be relieved by an alcoholic stimulant with ginger. Dr. Smith highly recommends the use of ergot, and gives a drachm of the fluid extract when there seems to be threatening of paralysis. If there is paralysis, it must be treated upon general principles. A hot bath has been found greatly to relieve the pain, but its use is discountenanced by Dr. Jaminet, as paralysis came on in some of his cases while they were in the bath. It has been said that prompt relief of the symptoms may be obtained by returning the subject to the compressed-air chamber, but this would be difficult to manage in most instances, as there are often many stairs or high ladders to be climbed before it could be accomplished, and there would be no facilities for taking care of sick men; besides that they would be much in the way of the further prosecution of work.

NOTE. For the convenience of the reader, the following bibliography is appended:

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ORIGINAL ARTICLES.

REMARKS ON EXCISION OF THE HIP.[1]

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AN apology is perhaps due to the Society for again bringing up so well-worn a subject as excision of the hip. But as it is one upon which surgical opinion is far from unanimous, its consideration must be always in order until the value of the operation is better settled than it yet is. The more recent views concerning tubercle and the rise of antiseptic surgery have stimulated the resort to excision in hip disease. Aseptic methods have now been long enough employed for considerable experience to have been accumulated as to their effect upon the ultimate results of this operation. This paper is the outcome of an attempt to ascertain from the periodical literature of the last six or seven years, what this experience has been, and whether any conclusions could be drawn from it regarding the indications for resection in hip disease. Although tolerably familiar with the difficulties of the question, I confess that I was somewhat surprised at the scantiness of the material which came to hand that was valuable for exact comparisons.

The grounds upon which resection of the hip is urged as preferable to non-interference are usually three:

First. That it directly saves life.

Second. That it shortens treatment, and by so doing, lessens risks both vital and functional.

Third. That it gives better functional results.

There can be no manner of doubt that the operation often saves lives that otherwise must certainly have been sacrificed. Such operations *in extremis* have been aptly compared to tracheotomy in like conditions. Under such circumstances failures should not be counted. Every success should be esteemed a clear gain, and even prolongation of life and mitigation of suffering be reckoned in favor of the operation. About such resections there is probably no question. The inquiry is rather this: comparing cases as nearly as possible similar, at what period, or under what circumstances, do the results obtained by excision become preferable to those gained by less radical measures? And it may be here said, that a good deal that has been said regarding the relative value of early or late operations is rather beside the question; for there is little doubt as to their comparative success. The issue is between the operation at all and conservative methods, and the former is clearly indicated whenever it can be shown to give better prospects for life than the latter.

The value to be set upon resection, therefore, depends very largely upon what is held to be the natural tendency of the disease, and upon what success can be gained by conservative treatment. And right here, at the start, we find a divergence of views so wide as to go far toward explaining the unsettled condition of opinion regarding the operation. The most gloomy statements come from German authors.

[1] Read before the New York Surgical Society, November 10, 1885.

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Thus, Billroth gave the death-rate of his cases, some of which were followed after leaving the hospital, at 31¼ per cent., taking, if I understand correctly, all cases. Hueter,[1] from hospital records alone, gave 26¾ per cent. The two lists united give 28⅔ per cent. Nowhere else is the death-rate set so high when all stages of the disease are considered together. From reports for several years of the Orthopædic Hospital in this city, I find that the deaths and discharges on account of incurability together make an annual average of about 4¾ per cent. of all cases treated. Gibney's statistics[2] from the Hospital for the Ruptured and Crippled, give for 288 cases a mortality from all causes of 12½ per cent. Taylor's statistics,[3] which give (deducting one case of violent death) 2 deaths in 92 cases, or 2⅙ per cent., cannot be fairly quoted here, as they are drawn from a private practice among well-to-do people.

Although exsection has of late been done quite early in the disease, yet it would be obviously unfair to make any comparison between the death-rate of these collections of cases in all stages, and the most favorable operative statistics. Again, although exsection is frequently done when destructive changes are recognizable in the joint, but before suppuration is evident, I know of no extended statistics of the corresponding cases treated conservatively. A few cases will be mentioned further on. But regarding suppurative coxitis, we have more distinct expressions of the results of experience and some statistics. Here again, Hueter's estimates exceed others in gravity. While acknowledging the absence of exact information, he states that he should be surprised if statistics would show that more than 50 per cent. of cases that reach the "second florescence stage" (the stage of flexion, adduction, and inward rotation) ever were healed. And he further states his belief that "suppuration of the hip-joint, if the cases in which a single small abscess forms and quickly closes again, and also the cases of scanty suppuration in the granulations of synovitis hyperplastica granulosa are subtracted, is a nearly absolutely fatal process."[4] Volkmann[5] is by no means as hopeless. Ollier[6] thinks that "the greater part of the suppurative coxalgias of children, may be cured by methodical expectation, aided by the resources of hygiene." Taylor lost 2 out of 24 suppurative cases, or 8⅓ per cent. This, as before stated, was in private practice. The Committee of the Clinical Society of London[7] set the mortality cases of suppurative hip disease treated expectantly at 33½ per cent. from all causes, or leaving out causes unconnected with the disease, at 31⅙ per cent. Cazin[8] gives the result of 80 cases treated at the hospital at Berck, sent from a Parisian hospital after they had failed to improve there. All but 10 of these were grave cases, and 5 per cent. were already albuminuric when received. The statistics cover five years; 55 per cent. were cured, 12½ per cent. died, 7½ per cent. were benefited, and the remaining 25 per cent. were not cured when removed. This remarkable success for cases of such severity, may perhaps be not fairly introduced here, as the patients, although belonging to the hospital class, were at Berck under excellent hygienic influences, and were systematically treated.

Gibney[1] out of 80 cases of hip disease, cured without mechanical treatment, found 48 that had had abscesses. No percentage of mortality can be made here, as the total number having had abscesses is not known; but this number of recoveries under a plan of the purest expectancy, shows that suppurative coxitis cannot be nearly as grave an accident as some have estimated it to be. As an offset, however, may be mentioned 19 cases recorded by Caumont,[2] treated conservatively, of which 12, or 63.1 per cent., died.

From these discordant figures and opinions it seems to me fair to conclude that their disparity is not the result of the bias of different observers, but that in some communities or districts circumstances may so influence the course of disease, as to make an actual difference in the facts. as well as in the interpretation of them. To express an opinion, therefore, as to the average mortality of suppurative coxitis may be hazardous, or even presumptuous. Nevertheless, my own observations lead me to accept the more moderate estimates as the more nearly correct, and I consider that the rate set in the Clinical Society's report is amply large; that is to say, that the death-rate does not exceed 30 per cent. even among the poor, at least as we know poverty in this great city. In private conversations, Drs. Gibney and Shaffer, of this city, both of whom have had unusual facilities for knowing the results of hip disease among the poor, expressed the opinion that the estimate I have given is very liberal and would considerably exceed the facts.

Now as to the death-rate of excision. Leisrink's[3] often quoted tables set it at 63.6 per cent., but this high figure is reached by setting aside all unhealed cases as worthless; which is a source of error, as many such cases go through the same course as unoperated cases and reach an ultimate cure, perhaps by ankylosis, after a long time. If all of Leisrink's cases had been included, his death-rate would have been 57.9. Sayre's[4] table gives 72 cases (2 being still under treatment) with 25 deaths, or 34.7 per cent. Culbertson's tables contain 418 cases, with 174 deaths, or 41.62 per cent. If uncertain cases, 30 in number, are excluded, the percentage will be 45.61. All these collections contain cases kept under observation for quite a long time, and this death-rate is by no means that of operation. Culbertson gives only 29 as immediately resulting from the operation, that is 6.93 per cent. of all cases. This is interesting as showing that even before the advent of anti-

[1] Klinik der Gelenkkrankheiten, S. 142.
[2] The Strumous Element in the Etiology of Joint Diseases, New York Medical Journal, July and August, 1877, reprint, p. 43.
[3] Observations on the Mechanical Treatment of Diseases of the Hip-joint, Boston Medical and Surgical Journal, March 6, 1879, p. 318.
[4] Loc. cit., p. 641.
[5] Resectionen der Gelenke. Samml. Ke Vort., No. 51, p. 2.
[6] Revue de Chirurgie, 1881.
[7] Transactions, 1881.
[8] Bulletin et Mémoires de la Société de Chirurgie, Paris, 1867.

[1] Medical Record, vol. xiii. p. 174.
[2] Deutsche Zeitschr. f. Chirurgie, Bd. xx. S. 137.
[3] Langenbeck's Archiv f. kl. Chirurgie, Bd. xii. S. 177.
[4] Orthopædic Surgery, second edition, p. 347.

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septic surgery, the operation, as such, added but little to the general mortality from hip disease.

Many lists published since the beginning of antiseptic surgery, contain cases treated in both periods, and often no attempt is made to separate them. Thus, Cowell,[1] in reporting 65 operations of his own, says "I now perform the operation antiseptically," but the results are all grouped together. It does not apppear that these cases were followed beyond the hospital. There were 7 deaths among them, or 10.77 per cent. Three cases above 18 years of age all died. Of the 62 cases below 18 years only 4 died, or 6.15 per cent. Here should be placed the statistics of the Clinical Society's report, before quoted, which gave a mortality of 40 per cent., or excluding deaths from causes unconnected with the disease 37.7 per cent. Holmes's[2] list, given in his well-known address in surgery, of operations done in British hospitals, belong to the five years ending 1878, a period during which antiseptic precautions were coming into use. They should probably be considered as mixed operations. It does not appear how long the cases were followed, but of 215 cases, 40, or 18.6 per cent., died, and 57, or 26.5 per cent., failed. Caumont,[3] whose statistics are commendable for the care with which cases have been traced for years after they left the hospital, and carefully classified, records 42 cases with 26 deaths, or 61.9 per cent. Only 5, or 11.9 per cent., died from the operation, the remaining 50 per cent. were from progressive caries, amyloid changes, and tuberculosis. His death-rate before antisepsis was 66 per cent.; since antisepsis, 41 per cent.

Of operations entirely antiseptic, Volkmann[4] reports 48, with but 4 deaths, or 8⅓ per cent. Two only of these (from shock) were strictly deaths from operation; the third, after two months, was from thrombosis, and the fourth, after three and a quarter months, from hemorrhage, from ulceration of an artery, due to a suppurating scrofulous gland. Volkmann estimates that 8 to 10 would subsequently prove fatal from the progress of the disease, which would run up the death-rate to 25 to 30 per cent. Korff[5] reports 16 deaths out of 33 cases treated antiseptically (48.48 per cent.), the death-rate diminishing steadily as the methods were improved, being 75 per cent. when Lister only was used, 52.63 per cent. with a modified Lister, 30 per cent. with a bichloride and salt gauze dressing. Grosch[6] bases his statistics on 166 cases treated antiseptically; 120 of these were observed to the end, with 44 deaths, or 46 7 per cent. He divides his cases into three stages. The first contains those operated on with unruptured capsule and slight changes in the joint; the second, cases with abscess and fistulæ; the third, cases with long suppuration, and extensive destruction of joint, with great debilitation. In the first class there was for children no death-rate; for the second, it was 24.1 per cent.; for the third, 67.5 per cent. Further, he found that for the period 1876–82, after antiseptic methods were well established, the death-rate was 9 per cent. less than for the period 1870–75, in which these methods were forming. Quite recently Alexander[1] gives the results of 36 operations apparently all done and dressed antiseptically (chloride of zinc and Lister). One case only died of operation (shock), 2.77 per cent., 10 more from disease. Total death-rate, 30.55 per cent.

It will at once be seen that statistics gathered in such different ways and to bring out different aspects of the question, cannot be closely compared with hope of an exact result. But if I have correctly apprehended the general import, it is this, that the mortality after resection of the hip-joint has materially diminished since the introduction of antiseptic precautions, and that the diminution corresponds very closely to the death-rate formerly chargeable immediately to the operation itself. Take the extensive tables of Culbertson; setting aside uncertain cases, he had a total death-rate of 44.58 per cent.; deducting deaths from operation (6.93 per cent.), we have 37.65 per cent., which is very nearly the same as Grosch's 36.7 per cent. for 120 completed cases under antiseptic treatment. In other words, asepsis has nearly abolished the risks from wound complications, and the death-rate is reduced very nearly to that from the uninterrupted disease when the operation has failed to arrest it.[2] And as it has been shown that in cases that heal, the period of healing is shorter than when antiseptics are not used, the danger of amyloid changes may be slightly lessened. Thus much has been gained by perfect antisepsis: in weighing the chances in any given case, we need no longer put much stress on the dangers of the operation itself, except perhaps the one element of shock, which the prolonged extirpation of diseased and suspected tissues necessitated by the thoroughness of modern surgery, sometimes favors. It seems then fair to say, that whenever the disease in its natural course assumes an aspect threatening to life resection is indicated, provided none of the less radical operations (drainage, gouging, etc.) can remove the danger.

It has just been mentioned that very early operations done while the changes in the joint are slight and the capsule unruptured have given no death-rate or almost none. But, on the other hand, the disease itself has practically no death rate at this stage. Occasionally, general or visceral tuberculosis may occur thus early, but rarely. Amyloid changes and exhaustion do not enter here as causes of death. It does not appear then that there is thus early any vital indication for excision. The early operation has been urged as vitally indicated in forestalling tuberculosis, and the other attendant risks of morbus coxarius by cutting short the disease. If it could be proven that such prevention actually followed the operation, it would be a weighty argument. As Grosch points out, tuberculosis is still the com-

[1] British Med. Journal, 1882, II. 360.
[2] Ibid., 1880, II. 212.
[3] Deutsche Zeitung f. Chirurgie, 1884, Bd. xx. Hefte 3 and 4.
[4] Verhandl. d Deutsch. Gesellsch f. Chirurgie, 1877, S. 59.
[5] Deutsche Zeitschr. f. Chirurgie, Bd. xxii. S. 149.
[6] Inaugural Dissertation, Dorpat, 1882, abstract in Centralbl. f. Chirurgie, 1882, S. 228.

[1] Liverpool Med. Chir. Journal, 1885, p. 289.
[2] At first sight, it would seem as if more had been accomplished, but, as Grosch's statistics contain very early cases of a kind that scarcely appear in Culbertson's, the comparison is not quite upon an equal basis.

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monest cause of death. König[1] maintains, as the result of a large experience in excision of all kinds (117 in three and a half years), that the hoped for immunity from tubercular infection has not been gained by antiseptic resection; of 25 deaths out of his operations, 18 were from tuberculosis, and, in addition, 9 cases, not yet dead, were hopelessly tuberculous; in all, 21.5 per cent. of his cases; and of 21 hip excisions, 10 (47.6 per cent.) died of tuberculosis in four years. In the debate on König's paper, some disagreement with his views was expressed, but Esmarch essentially confirmed them. Caumont[2] distinctly states that he found no preventive effect in his cases. Of 26 cases of scrofulous origin, treated by expectancy, he lost 5, rather less than one-fifth, from tubercular diseases; of 12 resected, he lost 4, or one-third. Others may have better results, but the prophylactic effect cannot be very decided if such marked exceptions occur.

Nor is it clear that destructive changes in the joint without evident suppuration often present a vital indication for excision. A vicious form of caries, characterized by great suffering and great destructiveness of tissues, without much pus-formation (caries sicca), is probably best met by resection. But of ordinary caries this is not true. It is a matter of common experience to find cases in which the destructive process is evidenced by the misplacement of the trochanter, which go through the whole course to recovery without any external evidence of suppuration. Caumont has taken the trouble to place such cases by themselves in his report. Of those treated expectantly, 25 per cent. died; of those exsected, 50 per cent.

It is not until suppuration has taken place that any vital indication for resection appears. Even here, I believe, the dictum of Hueter[3] is far too sweeping when he says: "I hold resection of the hip-joint in coxitis to be indicated as soon as an extensive suppuration of the joint manifests itself, or as soon as the course shows that the termination in suppuration can be no longer prevented. Such a statement, however, is the natural outcome of his extremely gloomy views of the results of suppuration. If the opinion I have expressed as to the prognosis of suppurative coxalgia is anywhere near a correct one, resection is only indicated in a minority of cases. The indication comes not from the existence, but from the persistence, of suppuration. If it persists, after the drainage of the abscesses, and under the best hygienic resources the patient can command, particularly if fever attends the suppuration, then exploration of the joint is indicated by incision or dilatation of existing fistulæ, with resection or a less extensive extirpation of the diseased parts, as the condition found may demand. And this should not be delayed after the system shows distinct depression from the suppurative process. To wait until the operation is the only escape from impending death, is to err on the side of ultra-conservatism. I have not mentioned necrosis or sequestra in the joint, because under such circumstances some operation for the removal of the dead bone is imperative. Likewise, if perforation of the acetabulum with pelvic abscess exist, we have no resource but resection. True dislocation of the femur with suppuration of the hip-joint is of very rare occurrence in ordinary hip disease, and the indication for excision, often urged in this connection, is rather orthopædic than vital.

A few words may be said regarding the second claim, that, namely, resection shortens the period of treatment, and that it diminishes the risks, both vital and functional. This is true of those cases that heal promptly and soundly, but only of such. Besides those that are fatal, there is a long series of cases that neither die nor heal, but live for years with persistent fistulæ. In Leisrink's tables 12.5 per cent. were "unhealed;" in Holmes's, 26.5 per cent. were "failures." Such cases are now spoken of as "relapses." Asepsis favors prompt healing of the soft parts, and the union subsequently in many cases breaks down, and the old process is reëstablished under circumstances in no way improved. Just how frequent these "relapses" are, I cannot say, but they are often mentioned as "common." My own observations make them about 20 per cent. of all cases operated on. A friend, who was in Kiel in the past summer, quotes Neuber as saying that "about half" of his cases relapsed. This refers, I understand, to the reopening of the wound, with tubercular granulations of its edges. Many of these ultimately do well after excision of the diseased parts.

Lastly, as to function. It is far from proven that resection gives better average results than a "natural" cure. In the question, shortening is not the most important element; the shortening from resection is, on the average, greater than from natural cure, but not so very much. In a case not resected, but of such severity as to bring the operation into consideration, the growth of bone from the upper extremity will have been considerably retarded or arrested according to the degree in which the epiphyseal cartilage has been affected. In a case resected, the growth will be entirely abolished and some bone already produced must be sacrificed. Ollier[1] points out that although the total growth in length from the lower extremity of the femur amounts to about twice that from the upper, yet, during the first four years of life, the two ends contribute about equally, and that later the lower increases in activity until its work is, toward the end, about three times that of the upper. The prognosis as to length, then, will vary with the age at which excision is done; very early excisions giving much the greatest ultimate shortening. The leaving of the trochanter does not much affect this relation, for what it contributes to growth in length is mainly above the joint, and does not much increase the efficient length of the bone.

The atrophy from inactivity affects the whole limb, and is not materially different in cases resected from those left alone. If a resection were promptly successful, the advantage ought to be in favor of the operation as permitting more speedy use of the limb.

[1] Ueber die Resultate der Gelenkresektionen, etc. • Verhandl. der Deutsch Gesellsch. f. Chirurgie IX. Kongress. Also, die Frühresection bei Tuberculöser Erkrankung der Gerlenke, etc. Archiv f. kl. Chirurgie, Bd. xxvi. S. 822.

[2] Loc. cit.

[3] Loc. cit., p. 653.

[1] Revue de Chirurgie, 1881.

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Again, a useful joint in a lower extremity must be stable as well as mobile. And, for most occupations, security in the support of the trunk is more essential than motion at any one joint. Mobility, with security at the hip after excision, is only obtainable when very strong fibrous attachments exist between the pelvis and the remains of the femur. The destruction from the disease, and the necessary extirpation of affected tissues, usually prevent the formation of attachments at once strong and flexible. Exceptions occasionally occur, and some very brilliant results have been obtained in which stability existed with very free motion.[1] Some very remarkable attempts at renovation of a hip-joint have occurred, and interesting specimens have been described.[2] Nevertheless, as a rule, the motion, if considerable, is combined with such feebleness of support that the femur rides up and down on the pelvis in the act of walking. "Flail-joint," in the usual acceptation of the term as meaning uncontrollable motion in various directions, is rare, and I do not remember to have seen it. It is this insecurity that has led some operators (Ollier, Caumont) to urge that if the operation is made very late, or in cases where much local damage has been done, if the patient must earn his living it is better to strive for ankylosis rather than mobility. *A fortiori*, the ankylosis of a natural cure—the limb, on the average, being longer than after excision—will give for such persons a more useful limb. The compensating mobility of the spinal articulations if the disease occurs in childhood is often marvellous. The most striking instance I ever saw is No. 31 in Dr. Sayre's tables of excision; the motion took place in the lumbar spine, not only antero-posteriorly, but laterally through a wide arc. Statistics (Grosch) show no better functional results for antiseptic operations than were formerly obtained.

Functional reasons strengthen the indication for the substitution, whenever possible, of the simple extirpation of diseased parts for formal excision, in that they disturb less the relations of parts. These less radical performances are, by the perfection of aseptic precautions, rendered safe, and the large removals of bone formerly necessary to prevent accumulations of pus and septic matter seem no longer essential. In the same direction, improvement of functional results may be hoped for by the employment in proper cases of the operative manœuvres in which a partial or temporary removal of the trochanter only is resorted to, the muscular attachments being little disturbed.[3]

Further, it should not be forgotten that good functional results as to position and motion can only be obtained by prolonged after-treatment. Neglect in this particular constantly produces great deformity; and the care required to secure these good results quite answers the claim already alluded to, that resection is a short road to cure.

The conclusion, then, to which the foregoing brings us is that exsection of the hip is indicated as a life-saving operation only, and that as it has not been shown that it can save from any dangers except those consequent upon prolonged suppuration, it is, with rare exceptions, only indicated when the suppurative process has evidently reached a dangerous point, and cannot be interrupted by any less serious operation.

[1] See, for example, several figured in Sayre's Orthopædic Surgery.

[2] Sayre, loc. cit., frontispiece, second edition. Küster, Archiv f. kl. Chirurgie, Bd. xxix. 409. Israel, Ibid, p. 411.

[3] Ollier, loc. cit. König, Centralbl. f. Chirurgie, 1882, S. 457. Neuber, Ibid., 1884, Beilage, S. 75.

THE LOCAL TREATMENT OF LARYNGEAL TUBERCULOSIS.[1]

BY BERNARD TAUBER, M.D.

WHETHER phthisis of the larynx precedes the pulmonary deposit or is only a sequence of the latter, is a question which I shall not discuss in this paper. A great many text-books on the practice of medicine still set forth the antiquated notion that topical treatment in this affection is not crowned with the success which we should anticipate, and the *nolle me tangere* plan is generally adopted. I think this is a fallacious doctrine against which I raise my earnest protest, and I can enumerate five cases of laryngeal phthisis of the first stage which are alive to day, after a lapse of ten years, and three cases of the second stage who lived three, four, and five years.

Having observed such favorable results, I take the ground that, *if laryngeal phthisis be observed in the initial or first stage and be properly treated, it can be arrested and sometimes cured.* In the advanced stages, by applying proper treatment to the parts, the patient can be made comfortable and kept up for some time.

Most authors on diseases of the throat recognize two stages of laryngeal phthisis. Clinically, three stages present themselves for treatment; pathologically, four stages are seen, namely: 1st, the stage of anæmia; 2d, that of tumefaction; 3d, that of ulceration; 4th, that in which necrosis or caries of the cartilages is present.

Examining the larynx in the first stage we find a marked anæmia—a paleness of the mucous membrane of a grayish hue, also a loss of adductive power in the vocal cords. Sometimes the latter may be congested. On physical examination, although we may find the lungs insufficiently expanded with diminished resonance, and although we may hear a prolonged expiratory breathing, the lungs may yet be comparatively free from disease. Patients in this condition will seldom seek for medical advice; only when local irritation in the throat has set in, is a laryngeal examination resorted to.

Having recognized the first stage, fortunately for such patients, little local treatment is required; stimulant inhalations of oleum eucalyptus, oleum pini or tinct. benzoini may suffice to allay the local disturbance in the larynx. Change of air and of scene is of paramount importance. There is no doubt that the various climates contain something for the arrest of phthisis in this stage; these are absence of damp soil, asepticity of the air, and dryness of the atmosphere. Outdoor life is the best tonic in phthisis; therefore a trip to New Mexico, Monterey, Mexico, or to Nassau (Bermuda Islands), with the

[1] Read before the Cincinnati Academy of Medicine, November 16, 1885.

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intention of remaining there for several years, is requisite; it is, I may say, indispensable for restoration to health. Those who cannot undertake such an expensive treatment, should use at home compressed air inhalations, and, if tonics be indicated, granules of arsenious acid, hyphosphites and koumiss, etc., should be given them. In a large majority of cases it is in our power to arrest this first stage before the development of the graver symptoms.

If the case have progressed to the second stage, we note a thickening and tumefaction of the mucous membrane, generally covering the arytenoid cartilages on one or both sides, or invading the interarytenoid commissure. I have had good success in checking this tumefaction for three or four years by applying the galvanocautery knife, flat surface, to the swollen parts. The pain occasioned by the cautery was allayed by insufflation of morphia and gum acacia. To reduce the pain to a minimum, I now brush the parts several times before and after the use of the thermocautery with a ten per cent. solution of cocaine. We must not overlook, however, one cardinal point in this stage of the disease, namely, to keep the stomach in good condition, and to treat the subjective symptoms as they appear. For the cough and excessive discharge from the throat, I generally order the patient to inhale a few drops of chloroform and creasote, and insufflate the larynx with morphia and iodoform, or cocaine and powdered sugar.

In the third stage we have to combat an excessive cell growth—destructive ulceration goes on. All our efforts to arrest this progressive stage of the disease are futile. The principal complaint of the patients is the painful deglutition of liquids and solids; they resist the act of swallowing, and it is done only with the greatest reluctance. To allay this misery, insufflation of morphia alone or combined with iodoform is not efficient; the effects of this anodyne may last only a short time, say one hour. The recently discovered cocaine, so highly spoken of as a local anæsthetic, I have tried extensively and faithfully in this stage of the disease in solutions of 4, 8, 10, and 20 per cent., also in the form of powders insufflated to these ulcerated parts. I must confess that this great remedy has disappointed me. Its effects pass away very rapidly—in 25 to 30 minutes—and to keep up its effect it would be necessary for the patient to remain all day in the physician's office, in order to have it reapplied.

For several years I have studied and tried to correct this painful deglutition, and can recommend to the profession a simple and efficient remedy; the application of the following solution, applying it thoroughly to the ulcerated parts once or twice a day:

℞.—Acidi carbolici . . . . ℥jss.
Tinct. iodini . . . . ℥ss.
Glycerinæ . . . . ℥ij.—M.

This application produces a whitish eschar and gives to the thickened and ulcerated parts an artificial covering, a protection, and a prolonged anæsthesia is established. The patient experiences a burning sensation for a very short time; in a few seconds he is enabled to swallow liquids and solids. I have seen patients ten or fifteen minutes after this application drink a cup of tea or coffee, or a glass of beer, make short work of a tenderloin steak and mashed potatoes, and even eat a hearty meal.

The anæsthetic effect will last from eight to ten hours; therefore, if the patient gets one topical application in the morning, he will be enabled to eat two meals a day; and another application can be made in the afternoon or in the evening, to enable him to take his tea. Imagine the patient's comfort and gratitude!

It is not necessary for me to explain to you the anæsthetic action of carbolic acid. We all know that it lowers the sensibility to pain and touch of the parts to which it is applied. It will even permit free incisions without suffering. Further, the carbolic acid is a destroyer of the bacilli, and at the same time we have the cleansing and antiseptic effects of the iodine.

The question of tracheotomy arises as a remedial measure to overcome the great dyspnœa. This operation is indicated only in the second stage of phthisis laryngealis, in order to secure to the larynx rest from the movements of the muscles, cartilages, and vocal bands engaged in respiration and phonation. In the third and fourth stages I am decidedly opposed to tracheotomy. This operation was justifiable in pre-laryngoscopic times. We know that ulceration is present to a great extent; the cartilages of the larynx and trachea are prone to caries; the presence of a tracheotomy tube in such a locality only causes irritation of the trachea, and does not materially aid respiration and deglutition. All we could achieve by the operation is the prolongation of a miserable existence for a few days. Such a procedure should be resorted to only under the most exceptional circumstances.

In looking over the literature of this subject, I have nowhere found the mixture here recommended to you, and which I have used with the greatest success for the last ten years, described or mentioned as a topical application to the larynx for the production of continued local anæsthesia. I hope my *confrères* will give it a fair trial and report their results.

HOSPITAL NOTES.

DISPENSARY FOR NERVOUS DISEASES, BALTIMORE.

Service of JOHN VAN BIBBER, M.D.

CLINICAL NOTES.

Facial Paralysis (Right).

R. S., sixty years of age, presented himself for treatment, Oct. 16, 1885. Gave the following history: retired on night of Sept. 27, 1885, in good health. On arising next morning, found that he could not comfortably masticate his food, that his mouth was drawn over to left side of face, and that he could not close eye of right side; he experienced some pain on this side. On questioning, he denied having been exposed to draughts while asleep, or at any other time; he said, however, that his face had been swollen and painful for a week previous

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to paralysis. On examination, found that all the muscles of the right side of face, supplied by the seventh nerve were paralyzed, for he could not voluntarily wrinkle his brow, close the eye, or move nose or mouth on this side. All the symptoms usually accompanying facial paralysis of a severe form were present. One symptom of particular interest was the hyperæsthesia of the right ear, indicating that the neuritis had extended high enough to affect some fibres of the auditory nerve.

The muscles were somewhat atrophied, and the temperature was below normal. There was no reaction whatever to faradic current, and only slight response to galvanic current. He was ordered to come daily for electric treatment, to rub the paralyzed muscles frequently, and to relax the overstretched fibres by pushing the side of face into its proper position.

After one week's treatment, it was found that some of his muscles would slightly reply to the faradic, after first using galvanic current. Patient was now ordered Van Bibber's hook and rubber muscle, and wore strips of adhesive plaster so adjusted as to support the lower fibres of the orbicularis. The above treatment has been persisted in up to date, November 9th, and patient's recovery is now assured, nearly all the muscles of the paralyzed side replying to faradic current. This is the result of above treatment for three weeks, begun three weeks after occurrence of paralysis.

Remarks.—In a case of facial paralysis in a patient 60 years of age, the prognosis is not as good as in younger subjects. The faradic contractility being lost, and interrupted galvanic not producing exaggerated reaction, prove that the origin of the paralysis is not central. I have reason to believe that if the patient had been unable to have the advantage of elastic apparatus and the bands of plaster to overcome the constant stretching of the paralyzed muscles, that his recovery would have been much delayed and a perfect cure extremely doubtful.

If massage is any advantage to a badly nourished muscle, certainly the physical aid in bringing about a more rational and relaxed condition of the over-stretched muscular fibres is a good element in the successful treatment of any paralysis where the opposite muscles are producing injurious traction. It does constantly what massage only does for a limited time, and in this case without the aid of some similar apparatus the good effect of the manipulation of muscles is soon lost in the injurious traction of the left facial group.

MEDICAL PROGRESS.

USE OF THE RECTAL LEVER.—MR. RICHARD DAVY has demonstrated the practical value of rectal compression of the aorta and both common iliac arteries in three instances within the last ten days. The first case was one of compression of the right common iliac artery for the removal of a recurrent growth involving the whole of Scarpa's triangle and the inguinal canal. The external iliac artery and vein were ligatured; so also were the superficial and deep femoral arteries and veins. The patient was a man aged twenty-eight, under Mr. R. Davy's care. Mr. Thomas Bond held the lever. In the second case, Mr. George Cowell amputated at the left hip-joint in a boy aged twelve, for sarcoma of the femur. Mr. Davy controlled the left common iliac artery. The third case was one of excision of the cervix uteri and adjacent parts for epithelioma, by Dr. Potter, in a woman, aged twenty-nine. Mr. Davy controlled the aorta for five or six minutes during Dr. Potter's manipulations. The total loss of blood during the three operations did not exceed seven ounces, and no rectal inconvenience has been experienced in either case.—*British Medical Journal*, Nov. 7, 1885.

NITROUS OXIDE AND OXYGEN AS AN ANÆSTHETIC IN LABOR.—The great advantages of nitrous oxide as an anæsthetic have induced various observers to endeavor to find a method of administering the gas continuously, so as to keep up the anæsthesia for a sufficient length of time for the performance of surgical operations. Paul Bert, some years ago, made experiments with animals in a chamber of compressed air, a mixture of nitrous oxide and oxygen being inhaled. He found that anæsthesia could be safely kept up for a long period; and he urged the construction of such chambers for operating on the human subject. Nothing of the kind, however, has, as far as we know, been attempted. In 1881, Dr. Si Klikovich, of Professor Botkin's clinic in St. Petersburg, made some experiments on himself, with a mixture of nitrous oxide and oxygen, in the proportion of 80 to 20, without any increase of atmospheric pressure, with a satisfactory result. He also used it for alleviating the pains of labor, and found it very successful and perfectly safe; the great objections to it being its expense, and the cumbersome nature of the required apparatus. Some months ago Professor Zweifel, of Erlangen, erected the necessary apparatus for the supply of the mixed gases to the accouchement ward of his obstetric clinic. He finds it best to administer the gases continuously during the latter part of labor, when the pains are most severe, not, as was practised by Klikovich, merely giving the gases when signs of an approaching pain appeared. Though this treatment had been adopted in sixty patients, no retardation of the process was ever observed. The patients were generally semiconscious; so that though they would answer if asked a question, they felt no pain, and were unaware when the child was born. In one case, where the woman screamed as a stitch was put in the perineum, she afterwards declared she had felt nothing. If this plan of administering nitrous oxide gas be really as satisfactory as Drs. Klikovich and Doederlein, in St. Petersburg and in Erlangen, have found it, surely there might be an apparatus constructed in some of our own lying-in hospitals. Probably, too, the mixed gases could be compressed in an iron bottle, and so made portable. If ever this plan should come into general use, the practitioner of the future, on being sent for in a midwifery case, will find himself obliged to carry, or get carried for him, very much more weighty impedimenta than the present pocket midwifery-case, or even than the most complete "obstetric bag." He will, however, have the satisfaction of knowing that he can really alleviate his patient's sufferings, instead of, as at present, having simply to look on, with folded hands, at agony which, being physiological, he can do nothing to relieve, at least, without running other risks, which, as a rule, he does not not feel called upon to do.—*British Medical Journal*, Nov. 7, 1885.

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NEPHROTOMY FOR TOTAL SUPPRESSION OF URINE.—MR. CLEMENT LUCAS performed an unique operation in Guy's Hospital on October 29th. A woman, from whom he had removed the right kidney for total destruction of its secreting structure by large calculi and hydronephrosis, about four months ago, and who had made a rapid and complete recovery, was suddenly seized with great pain in the left kidney, followed by vomiting, headache, and suppression of urine. She passed urine last on Sunday morning, October 25th, between eight and nine o'clock; and, from that time till the operation on Thursday afternoon, no urine passed, and vomiting was persistent. Her medical attendant. Mr. Atkins, of Sutton, correctly interpreting the meaning of her symptoms, placed himself in communication with Mr. Lucas, and the patient was brought to London on Wednesday, October 28th. It was thought that the effect of diuretics in flushing the kidney might yet be tried whilst the patient was watched. These proved of no avail, and on Thursday afternoon, the patient having become drowsy and much weaker, Mr. Lucas cut down the remaining kidney, and removed from the pelvis a conical calculus, measuring seven-eighths of an inch by one-half in its greatest diameters. Total suppression had then lasted 102 hours. A free flow of urine took place at once through the wound, and the patient was relieved of her vomiting and drowsiness. Five days after the operation she was doing well and feeling comfortable. Mr. Lucas's case of nephrectomy performed on October 20th healed without suppuration or fever. The patient sat up for the first time on the eighth day, and is now convalescent.—*British Medical Journal*, November 7, 1885.

TREATMENT OF LUPUS.—A new method of treating lupus has recently been suggested by PROFESSOR C. GERHARDT, of Berlin, which may be said to be a direct outcome of the discovery of the bacillus of tubercle. Hitherto it has always been thought essential to use destructive measures in dealing with the disease, and whether by cauterization or by direct scraping out of the affected tissue the main object has always been the same. But of late years the presence of the tubercle bacillus in the lupoid patches has been constantly recognized, although in very small number. As many as twenty and thirty specimens have been examined by Professor Koch before the bacilli have been seen. Taking this fact into consideration with the extremely slow progress of some cases of lupus, Professor Gerhardt is led to the belief that while the bacillus is at work as a principal factor in the disease, some other element must be present which prevents the bacillus from spreading and multiplying with the rapidity which characterizes it elsewhere. He finds in the superficial situation of lupus and its consequent exposure to cold, the deterrent influence which hinders the spread of the microörganism. Acting upon this view, he has adopted a form of treatment whereby the influence of cold, by means of small ice-bags, can be constantly exercised upon the diseased surface, and he records some cases (*Deutsche medicinische Wochenschrift*, No. 41) which would seem by their results to justify the line of treatment, if not to prove the theory upon which it is founded. The advantages claimed for the method are these: that the disease is checked in the same or even a shorter time than by the ordinary means, and without any destruction of surrounding tissues, and that the activity of the tubercle bacilli is checked, if not altogether destroyed. To what extent the good results hitherto obtained will be permanent has, however, yet to be proved by the test of time.—*Medical Times*, November 7, 1885.

THE EMPLOYMENT OF POWDERED COFFEE AS AN ANTISEPTIC DRESSING IN MILITARY SURGERY.—DR. OPPLER (*Deutsch. milit. Zeitschr.*, 1885) proposes the employment of powdered coffee as a primary dressing upon the battlefield, especially in default of other antiseptics. The powdered coffee should be applied to the wound and covered over with a small quantity of soil, an air-tight antiseptic dressing thereby resulting. Former experiments of Dr. Oppler show that powdered coffee prevents putrefaction of blood, urine, foods, etc., and that it is a true antiseptic.—*Archives de Médecine et de Pharmacie Militaires*, November 1, 1885.

BELLADONNA AS AN AGENT TO PRODUCE TOLERATION OF THE IODIDE OF POTASSIUM.—M. AUBERT, in *The Lyon Médicale*, No. 13, 1885, proceeding from the fact that belladonna produces dryness of the throat, nose, and mouth, was led to employ it along with iodide of potassium as a preventative of the coryza which attends the long-continued use of this drug. His observations show that when the two remedies are used together intolerance is never experienced, and the iodide fails to produce its characteristic symptoms.

The quantity of belladonna necessary to produce such result is stated to be from one to two pills, each containing five-sixths of a grain of the extract.—*Annales de Dermatologie et de Syphilographie*, October, 1885.

MALARIAL GANGRENE.—DR. BLANC, in a contribution to the study of malarial gangrene, concludes:

1. Cold and serious pulmonary disease should be placed among those causes which play an important part in the production of local asphyxia and malarial gangrene.

2. Exposure of those suffering from malaria—their sudden transition from warm to cold countries—may occasionally produce local asphyxia and malarial gangrene.

3. The antiperiodics, quinine and arsenic, seem to constitute the best treatment for the complications attending the disease.

They may arrest and cause the local asphyxia to disappear completely; they may check and limit the gangrene, but here the specific action seems less sure and rapid than in the state of asphyxia. The well-known difference in the action of quinine upon visceral lesions, according as they are congestive or sclerotic, is here observed, though in a mild degree.

4. From a surgical point of view in the treatment of malarial gangrene it is advantageous to operate only when the progress of natural elimination has ceased.

The gangrene being dry, danger of infection is remote. The difficulty of at first distinguishing parts which are mortified and those simply the seat of prolonged local asphyxia, is a further reason for tardy operation.—*Archives de Médecine et de Pharmacie Militaires*, November 1, 1885.

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UTERINE INVERSION FOLLOWED BY NORMAL PREGNANCY AND CURE.

A CASE of inversion of the uterus, in which this condition did not prevent pregnancy, and at some time during the latter, spontaneous restoration occurred, is reported in *L' Union Médicale*, October 13.

The story as told by DR. PARRELL, of Dieppe, is briefly as follows: The patient, twenty years of age, a primipara, was attended in her labor by a midwife, who stated that the delivery of the placenta was difficult, the cord was very short, and strong tractions upon it were necessary to remove the former. The uterus, after the placenta was withdrawn, was in normal condition. The following night the patient had violent pains, and straining efforts were made as though she were in labor. The next morning, about twenty-four hours after delivery, Dr. Parrell was called, because the woman had retention of urine. He found the uterus inverted, and efforts were then made, and also at other times within the next few days, to restore it, but without even partial success. In six weeks the patient was up, and by wearing a Gariel's air pessary could walk, or stand, with comparative comfort. At each menstrual period she suffered with dysmenorrhœa and some menorrhagia, but the flow was not alarming. One year after the accident, she called upon her physician, stating that she thought herself pregnant, having then missed her monthly flow once. He examined, and found the uterus still inverted. She was not seen again for four months, when vaginal examination showed that the uterus was no longer inverted, and auscultation detected the sounds of the fœtal heart. Four months subsequently she was delivered of a child, the accident following the first labor not being repeated.

Is the story credible? Velpeau said that he accepted the occurrence of the *vagitus uterinus*, because reputable persons asserted they had heard it, but if he heard it himself, he would not believe it. In this case, we think a good deal stronger proof than the statement of one individual, however intelligent and conscientious, must be adduced before the story can be accepted, and we wish the reporter had manifested a similar scepticism to that of Velpeau.

Three things in the narrative seem improbable, and a fourth is apparently impossible. First, the non-occurrence of severe menorrhagia is not the usual fact, at least in the absence of lactation, in case of uterine inversion: an inverted uterus suffers more readily from congestion, and exhausting hemorrhages follow, so that anæmia is the common result. Second, dysmenorrhœa is certainly not a probable accompaniment of uterine inversion. Third, spontaneous reduction of an inverted uterus is a very rare occurrence, there having been so far recorded, according to Denuce's statement in his *Traité Clinique de l'Inversion Utérine*, published two years ago, only fourteen cases: of course, the possibility of this event occurring in Dr. Parrell's patient, is not denied, but only its great improbability suggested.

Finally, we are asked to believe that the uterus remaining inverted, fecundation occurred, that the ovum was by some means detained at some point upon the surface of the organ, and a few weeks after the beginning of pregnancy the uterus restored itself, carrying the ovum from its external surface to its cavity, a detention and transportation which seem so utterly improbable, that the combination of the two may be regarded as impossible. It would be much easier to believe that the reporter committed an error of diagnosis, than that nature accomplished such wonders.

This, however, is not the first instance in which pregnancy is asserted to have occurred while the uterus was inverted. Chevreul, of Angers, communicated to Baudelocque such a case. He had recognized the inversion before the pregnancy, and found it still present after an abortion which happened at three months, an embryo three inches long being expelled. Chevreul thought that the pregnancy had taken place in a dilated oviduct. But such hypothesis is unnecessary if we admit the alleged facts in Dr. Parrell's case.

THE CURE OF ANGINA PECTORIS.

IN the *Bulletin Général de Therapeutique*, for September 30th, HUCHARD has an important communication on this subject. In the first place, he distinguishes most carefully the pseudo-anginal attack from the true, and his remarks upon treatment apply to the latter alone. He regards the disease as an affection of the arteries of the heart, and not a cardiac

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neurosis, and quotes numerous facts in support of his position. As adherents to this view he claims Germain Sée, Potain, and others, and even Lancereaux, who formerly regarded it as a neurosis. Perhaps the majority of writers on the subject are of the opinion, which has had numerous supporters since the days of Edward Jenner, that the actual lesion of the disease is in the coronary arteries.

An arterial malady must be met by arterial medication, and as the blood-pressure is always increased in the affection, all remedies which heighten the vascular tension must be avoided, as ergot and digitalis. He refers to a curious observation of Wesley Mills, in which anginal attacks followed the local application of ergot. For the relief of the paroxysms, we have at our command amyl nitrite and nitro-glycerine, which cause vaso-dilatation, lowering of the blood-pressure, and increase in the vigor and frequency of the heart-beats. They relieve the angina alone, and are in no way curative, but Huchard believes that the iodides possess the means of so modifying the arterial condition, that a positive cure may be effected. In 1883 he reported six cases which had been greatly benefited by their use, and since then he has had twenty-five patients under his care, of whom fifteen have recovered completely, six have been much improved, and in four cases the effect of the treatment was negative. The possibility of any of these being pseudo-anginal cases was carefully excluded. This brilliant result he attributes in a great part to the action of the iodides on the sclerosed coats of the vessels. The chief element in success is perseverance in the treatment for many months, at least fifteen to eighteen; from fifteen to forty-five grains of the salt are taken daily, until some months have elapsed from the last attack. The administration of the drug may be kept up for as long as three years, to insure durable and certain recovery. He prefers the iodide of sodium for prolonged use, as the potassium salt, when employed for many months, has a weakening effect upon the heart; moreover, it is better borne and more readily assimilated.

Details are given of six cases, in which the results of the treatment, as narrated, are truly remarkable, and certainly justify the prolonged trial of the remedy in this terrible affection. The usual care must, of course, be exercised in these cases to regulate the diet, and remove all sources of mental worry and disturbance. The four cases of failure show that the remedy is not always curative, but in such instances the arteries may be in a state of calcification and past medication.

RUSH AS AN ALIENIST.

IN his recently issued volume, *On the Insane in the United States and Canada*, DR. D. HACK TUKE has an interesting preliminary sketch of Rush in relation to the insane. The *Medical Inquiries and Observations upon the Diseases of the Mind*, which appeared in 1812, was the first work on insanity issued in this country, and remains one of the most valuable of American publications on this subject. A fifth edition was published in 1835. While in some respects the views entertained by Rush, and the practice which he followed, did not differ very much from those in vogue at his time, Dr. Tuke claims for him that he distinctly recognized the corporeal nature of insanity, that he taught it to be a disease requiring medical, as well as moral, treatment, and that he gave to the profession and world an able exposition of the forms of mental disorder.

The extracts which Dr. Tuke gives in illustration of Rush's mode of dealing with refractory patients show how impossible it was even for so humane and gentle a man to free himself from the ideas and practices of his day. Still he was in many points far in advance of his time, if he did not quite come up to the standard of his noble contemporaries at the Bicêtre, and the York Retreat; for we find him advocating the employment of the insane, and taking active measures for the amelioration of the unfortunates in the basement cells of the Pennsylvania Hospital; and he seems rejoiced to be able to say that "the clanging of chains, and the noise of the whip are no longer heard in their cells."

After reading of his heroic treatment for mania, we wonder that any of the patients recovered—copious bleedings, purges, and low diet; and after the system was thoroughly reduced, "blisters, issues, errhines, the cold bath, and exercise"—and yet he seems to have been very successful.

The position taken by Rush in regard to moral insanity is that of advanced modern writers, and we are reminded of Maudsley, when, in his "Inquiry into the Influence of Physical Causes upon the Moral Faculty," he speaks of "moral derangement and of innate preternatural moral depravity, the result of defective organization."

Rush was an ardent temperance reformer, and was one of the first to plead for the establishment of curative institutions—*sober houses*—for dipsomaniacs. Only a few days ago, in recognition of his labors as a pioneer in this department, the interesting ceremony of planting a tree upon his grave was performed by one of the National temperance organizations.

Rush has been called the "American Sydenham," but Dr. Tuke prefers to call him the "American Fothergill," and he points out striking resemblances to his great London contemporary "in the independence of his medical practice; in acuteness of observation; in an enthusiastic love of the art of healing; in his incessant labor; in popularity as the

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leading physician of the day in a great city; but, above all, in uniting with the functions of a physician the philanthropy which manifested itself in innumerable practical suggestions for the benefit of his kind."

POLYMASTIA.

ANCIENT fable taught that the Amazons burned, or compressed, the right breast in childhood, so that, its development being arrested, these warrior women could more readily use the bow. A less ancient mythology, for the cry, "Great is Diana of the Ephesians," was heard in the first of our centuries, represented Diana of Ephesus by a statue with two large, full breasts, and other breasts covering the chest and the abdomen; according to St. Jerome, the statue was the mystic image of nature, which is the mother and nurse of all living things. The Ephesian Diana, therefore, must be considered the first and best known example of polymastia.

Polymastia has been observed in both the male and in the female, but probably never was advantageous to either. Even a single supplementary breast, in at least one instance, was a woman's greatest misfortune, if the story as to Anne Boleyn be true; for she, who had a superfluous finger on each hand, had also a third breast, and it was this condition that aroused the hate of that most cruel of monarchs, Henry VII., a hate which could only be appeased by her death.

Polymastia is not a very rare anomaly. Puech has collected in France seventy-seven cases; in forty-six there were three breasts, in twenty-nine four, and in two five. Lichtenstein has in Germany collected one hundred and five cases.

If there be only one additional breast, it is usually below one of the other breasts, or in one of the axillæ; if two, they are generally in the axillæ; but if three, the third will be found above the umbilicus. The supernumerary breasts are usually pectoral, rarely are any abdominal, and in a few instances a breast has been found upon the thigh, upon the shoulder, and even upon the back.

Cicero found proof of divine wisdom, in that the number of breasts corresponded with the number of young born at one time; and hence a multiparous animal had many breasts, the sow and bitch being familiar illustrations. The problem of polymastia in the human female, probably never presented itself to his mind.

The presence of breasts in the human male is, according to Darwin, evidence that in the earlier stages of evolution lactation was performed by both sexes. Upon the same principle, polymastia would be considered an indication of atavism, a reversion to a former type, which, were it to become general, would disturb the very bones of Malthus.

DR. HOLMES AND HOMŒOPATHY.

SEVERAL years ago, DR. OLIVER WENDELL HOLMES delivered a series of lectures upon "Homœopathy and Kindred Delusions." In reference to the former, he remarked that the most scientific men see through its delusions at a glance, and that while it might be practised by shrewd men, and by honest men, rarely, it must be feared, by those who are both shrewd and honest: as a psychological experiment on the weakness of cultivated minds, he regarded it as the best trick of the century.

We have been led to refer to these earlier utterances of the wise, learned, and observant doctor, as to homœopathy, by finding in the December number of the *Atlantic Monthly*, a brief, incidental reference to the same subject from his gifted pen—a pen, which, not in malice, but in kindness and love of truth, has done so much to expose medical error, an Ithuriel spear, which penetrates disguises, and reveals the shams and falsehoods concealed by them. The reference made by Dr. Holmes to homœopathy, which we present, shows that his opinion of this delusion has been in no wise changed. The following is an extract from a letter written by a young lady to one of her female friends; the two being among the characters in "The New Portfolio." In this letter, after referring to the possibility of her becoming a doctor's wife, she says: "I don't know but I should be willing to let him try his new medicines on me. If he were a homœopath, I know I should; for if a billionth of a grain of sugar won't begin to sweeten my tea or coffee, I don't feel afraid that a billlionth of a grain of anything would poison me—no, not if it were snake-venom; and if it were not disgusting, I would swallow a handful of his *lachesis* globules, to please my husband. But if I ever become a doctor's wife, my husband will not be one of that kind of practitioners, you may be sure of that, not an "eclectic," nor a "faith-cure" man.

Alas, that a woman entertaining such just sentiments in regard to medicine, should find her affinity in a clergyman, instead of in one of the graduates in medicine of Harvard.

SOCIETY PROCEEDINGS.

NEW YORK STATE MEDICAL ASSOCIATION.

Second Annual Meeting, held in the hall of the Murray Hill Hotel, New York, Nov. 17, 18, 19, and 20, 1885.

TUESDAY, NOVEMBER 17TH.—FIRST DAY.

AFTERNOON SESSION.

DR. HENRY D. DIDAMA read a paper on

TUBERCULAR CONSUMPTION; IS IT EVER HEREDITARY?

in which he quoted the opinions of different authorities on the subject of a hereditary tendency, hereditary diathesis, etc., and also the results of post-mortem exami-

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nations by various pathologists, and said that in examinations of the bodies of thousands of fœtuses, none were found to have tubercle, which weighed heavily against the hereditary theory. He also quoted the statistics furnished by insurance companies, in which it appeared that the majority of cases of phthisis occurred in persons whose parents had not suffered from the disease.

The following are the conclusions which the author reached: First, that tubercular disease is not inherited. Second, that if a special tendency to the disease be transmitted, the term liability better expresses the idea than the term tendency. Third, many conditions, as poor and insufficient food, damp and impure air, stinted sunlight, and certain occupations, favor the development of the disease. Fourth, two conditions are almost indispensable—abundance of bacilli and an inviting asylum for their development, whether it be an inherited or an acquired vincibility.

An important indication is to place the newly born of a phthisical mother under the charge of a healthy wetnurse, who should occupy a room entirely secluded from that of the consumptive members of the family. This gives an opportunity to strengthen the feeble constitution and to eradicate a liability to the development of consumption. If a syphilitic taint exists or is suspected, the author advised antisyphilitic treatment, not only with a view to cure the syphilis, but also with a view to strengthen the constitution and guard against the development of phthisis.

DR. ROCHESTER said that some years ago he made an autopsy on an infant which died three weeks old, and he found one lung crammed with miliary tubercles, and in the other was a cavity the size of a hickorynut. The mother was healthy; the father had died before the baby was born. In another case in which the father died before the birth of the child, and the mother was a healthy woman, having no tuberculosis, the child died at eighteen months of age, having had for a long time before death every indication of pulmonary phthisis, and recently of tuberculosis of the vertebræ. In the light of these cases he could not help but believe that, sometimes at least, phthisis is hereditary. He admitted, however, that many people have phthisis whose parents were free from the disease. The paper was further discussed by Drs. Colvin, Pomeroy, and others.

DR. SIMEON TUCKER CLARK, of Niagara County, then presented a paper on

PSOITIS AND PERPSOITIS: THEIR PATHOLOGY AND DIFFERENTIAL DIAGNOSIS,

in which he first referred to the paucity of the literature of the subject, and the difficulties attending a differential diagnosis, and then proceeded to give the clinical histories of three cases which had come under his personal observation. In all of the three cases there was a history of traumatism. In the first case the patient, a woman without children, aged forty-three, had received a blow on the abdomen, which was followed by severe pain in the suprapubic region, two inches from the median line. The physician who examined her recognized a hard lump, from which the pain seemed to proceed. Vaginal examinaton resulted negatively. Dr. Clark saw the patient later, and became convinced that there was suppurative inflammation of the psoas. Finally, pus was removed, and thirty-one aspirations were made before a cure was finally effected. The pus did not contain a trace of phosphate of lime.

The second case was in a young man, whose condition originated in strains during roller skating. When he consulted his physician, Dr. Gould, he complained of pain in the region of the hip, and had a rapid, bounding pulse, the temperature 105°. Afterwards copious perspiration, of acid odor, etc., led to the diagnosis of rheumatism; but later a boggy tumor appeared in the suprapubic region. An exploratory puncture gave exit to foul gases, followed by pus. An opportunity to make an autopsy was afforded in this case, and a psoas abscess was found, which had led to denudation of the bone beneath; and there was also some softening of the vertebræ; but it was evident that the disease had originated in the muscle, and not in the vertebræ.

The third case was that of a man, who first attributed his difficulty to rheumatism, from which he was a frequent sufferer, but it was learned that he had injured himself in the region of the psoas while throwing filled sacks upon a wagon. He complained much of pain in the neighborhood of the thigh. The pain was relieved by a local anæsthetic. A suprapubic tumor developed, which, at a time when Dr. Clark had intended to open it, burst spontaneously into the bladder, and a quart of healthy pus was evacuated per urethram. Later, another opening for the escape of pus was made by the knife, above Poupart's ligament, and then pus ceased to escape through the bladder, and, finally, through the artificial opening, and the patient went on to complete recovery.

DR. CLARK pointed out, in the differential diagnosis, history of traumatism, pain in the region of the thigh and leg, the posture of the patient, avoiding extending and rotating the leg, the suprapubic tumor, and, on aspiration, obtaining laudable pus. In each instance the syringing of the pus cavity was followed by washing out with solution of carbolic acid.

DR. FREDERICK HYDE, of Portland, believed that many cases of supposed vertebral disease are really cases of the kind related by Dr. Clark, and he urged with great earnestness the importance of making a careful search in suspected cases for a history of traumatism, for a pelvic tumor, and for pus by repeated use of the aspirator, if necessary; for the train of evils following a change of the laudable pus, which was first present into unhealthful pus, is too long and serious to permit of postponement of the case, with the idea that eventually the symptoms will demonstrate it to be a case of Pott's disease. If taken in the early stage, a cure can be effected and the bones will escape implication.

DR. CRONYN, of Buffalo, had seen two or three cases of psoitis, and said that in diagnosis valuable aid will be found in putting the patient under the influence of chloroform, flexing the thigh, and searching for fluctuation over the region of the psoas muscle. History of traumatism is important in diagnosticating psoitis. Let the pus escape, then keep the leg in the extended position, bringing the walls of the sac together, and union will rapidly take place.

DR. MOORE, of Rochester, thought that where it can be shown that the disease has begun with a traumatism, it is unnecessary to try to explain its occurrence on the supposition of a tubercular inflammation. An acute disease may become chronic, and, of course, when this occurs, there is a good opportunity for tuberculosis to

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develop. But the commencement may be in fibrous tissue, thence to the bone.

DR. CHARLES W. BROWN, of Elmira, then opened a discussion on

SHOCK, AND THE EFFECTS OF INJURIES UPON THE NERVOUS SYSTEM.

He described the symptoms present in shock, and referred briefly to the explanations which had been suggested of its nature. He had seen a few cases of what had been termed "insidious" shock, in which the patients did not suffer pain in proportion to the seriousness of the injury, and were of a cheerful state of mind, although there was almost a diagnostic melancholy expression upon the face, which seemed to foretell death. He also referred to individual susceptibility, and said that some persons of fleshy habit and apparent health will succumb sooner to a minor injury producing shock than some others of delicate habit and nervous temperament, the nervous system in the latter giving way less readily. Shock is less in persons suffering from chronic disease, but such persons are less likely to regain strength and make complete recovery afterwards, than are those of previous good health, who may be able to withstand the first influence of the injury upon the nervous system. There are two indications in treatment, the first to modify the effects of the shock, and the second to control superinflammation. The use of heat and stimulants received some attention.

DR. FRANK H. HAMILTON, of New York, continued the discussion with a short paper, read for him by Dr. Bermingham. His remarks were limited to surgical shock, which, he said, may be defined as a general paresis of the nervous system induced by external violence. One point which received his attention was what is called railroad shock. Many of the symptoms which have been described as belonging to railroad shock were seen in certain cases of shock which occurred before railroads had come into existence. But, if he admitted that the introduction of railroads had brought into existence a particular kind of shock, Dr. Hamilton thought it is due to that sort of injury to the spinal column which is likely to occur in railroad accidents, resembling the cracking of the lash of a whip. In these cases he believed that the injury is not primarily in the nature of a shock resulting from commotion of either peripheral or central nerves, but that those structures which lie external to the spinal marrow, and contribute more or less to its support and protection, of which the ligaments are the chief factors, are those which suffer direct injury, and from which inflammation subsequently progresses to the spinal marrow itself. As to the treatment of shock, bring about reaction by rest, in some cases by warmth and stumulants.

DR. EDMUND S. ARNOLD, of New York, took the view that shock is due to an impression produced upon the sympathetic nervous system, tending to stop its function, and in doing so stopping nutrition of vital parts over which that system of nerves presides. Sudden death occurs if such influence is sufficient entirely to destroy the function of this system of nerves or ganglia, as in death by lightning-stroke. Another illustration, he thought, is in death by hydrocyanic acid. If there is an influence upon the heart in this case, he thought it is directly due to suppressed function of the sympathetic system which presides over its action, and other parts of which system of nerves are also affected at the same time.

DR. CARLOS F. MACDONALD reported a case of

INSANITY FOLLOWING AN INJURY OF THE HEAD; CEREBRAL CYST; OPERATION; RECOVERY.

The patient was a man who received a pistolshot on the frontal region, inflicted by his own hand. The man was sent to prison, where he developed symptoms of insanity, and had to be confined to a cell. For a considerable period of time, however, he had been required, and was able, to do prison duty, but manifested an impassionate temper. It was decided to trephine. At the seat of the wound, which was half an inch in diameter, a fourth of an inch in depth, located over the right first frontal gyrus, corresponding to the junction of the anterior and middle third, three-eighths of an inch to the right of the median line. The patient was etherized. The wound was found traversed by dense fibrous tissue, no bone intervening between the dura mater. A fine hypodermatic needle was introduced, and nothing was withdrawn until the fourth puncture, when about two drachms of serum were withdrawn. The fluid contained a few blood corpuscles, which were accidental. Nothing more was done than to close wound with suture and dress antiseptically. The patient on coming from under the influence of the anæsthetic was in his natural mind, was greatly pleased with relief from pain at the seat of the injury, and shortly afterward gave a satisfactory account of his case from the beginning, excepting a period when he was unconscious. He went on to complete recovery, with permanent relief from cerebral symptoms, excepting a part of a day. It was learned that the physician who saw him after the shooting had removed the pistol-ball; he found no fracture of the bone, or spiculæ.

NIGHT SESSION.

DR. AUSTIN FLINT opened the

DISCUSSION OF PNEUMONIA

with a paper, in which he propounded the following eight questions:

1. Is acute lobar pneumonia a primary local inflammatory disease, or is it an essential fever, the pulmonary affection being secondary thereto and constituting its anatomical characteristic?

Since 1877, when he read a paper in support of the doctrine, that acute lobar pneumonia is not a local affection, but an essential fever, that doctrine has been gaining ground. This view is supported by the following facts: First. Acute lobar pneumonia is characterized by an enormous exudation into the pulmonary alveoli, and this exudation may be rapidly absorbed, leaving the tissues intact. This anatomical fact, he said, has no analogy in local disease. Second. Acute lobar pneumonia never persists and becomes a chronic affection. Third. It is never referable to any appreciable local condition, nor is it possible by any form of traumatic injury to produce the affection. Fourth. Ordinary causes of local disease are not capable of producing acute lobar pneumonia. The traditional belief that the affection may be produced by a cold is without foundation, and is being abandoned, even by the Germans. Fifth. That a special or specific influence is invariably the cause of

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acute lobar pneumonia, is rendered probable by its occurrence at certain seasons, greater frequency in certain climates, occurrence at times as an epidemic disease. Sixth. It differs from acute primary local inflammation in that at the outset there is a pronounced chill. Seventh. In the course of the disease, the temperature and associated febrile phenomena bear no constant relation to the local affection. Eighth. Experience shows that acute lobar pneumonia responds better to treatment addressed to the fever, than to the local affection.

2. What facts and rational grounds, with our present knowledge, can be cited in support of the doctrine, that acute lobar pneumonia depends on the presence of a specific microörganism?

Dr. Flint left this question for discussion to Dr. Janeway, but expressed his belief in a specific microörganism as the cause of the disease.

3. What conditions or circumstances incident to acute lobar pneumonia, tend to render the disease fatal?

The present or previous existence of certain other diseases, renders the prognosis more unfavorable, and certain conditions, as empyema, pulmonary gangrene, malarial miasm, etc., are more likely to develop in one who has been reduced by pneumonia. Of special conditions rendering danger of a fatal issue in the course of the disease greatest, the author mentioned heart clot and heart failure.

4. Are there known remedies or therapeutic measures capable of arresting this disease, or of exerting a curative influence by either shortening its duration or conducing in any way to a favorable termination?

Dr. Flint had reason to believe, that quinia had been of benefit in shortening or exerting a favorable influence upon acute lobar pneumonia. But he could not enter fully into discussion of the treatment.

5. Is bloodletting ever indicated in this disease, and, if so, what are the circumstances indicating and contra-indicating this measure of treatment?

Acute lobar pneumonia tends intrinsically toward recovery. Treatment in general should be for special indications. He believed there are circumstances in which bloodletting will prove of benefit, and that benefit will be most likely to manifest itself in relief of oppressed heart-action. Contraindications of bloodletting are previous existence of enfeebling affections, and the anæmic state. A plethoric condition and a bounding pulse are among indications for this measure. The collection of cases made some years ago by Lewes, in which there were twenty-eight deaths out of a total of seventy-eight cases in which bloodletting was resorted to, showing a high mortality; but the cases were not selected.

6. Is alcohol useful in the treatment of cases of acute lobar pneumonia, and, if so, what are the indications for its use, and how is its use to be regulated as regards the quantity given, etc.?

The author regarded alcohol as indicated wherever there is required the supporting plan of treatment; wherever there is a tendency to asthenia, it should be begun tentatively.

7. To what extent is it safe and useful to employ antipyretic measures of treatment in cases of acute lobar pneumonia, inclusive of the cold bath, sponging of the body, or the wet sheet?

Dr. Flint spoke specially as to his experience with the wet sheet, which he had employed in three cases, with favorable results.

8. Do relapses of acute lobar pneumonia ever occur during or shortly after convalescence, and does this disease involve any special liability to other diseases, or sequels.

The first part of the question, the author answered in the negative, and said that this fact is in favor of the view that the disease is an essential fever, for local diseases have relapses. But one attack does not exempt against subsequent attacks.

The first question propounded was discussed in brief papers by Drs. Didama and Ross; the second by Dr. Janeway, who expressed regret at having been unable, on account of sickness, to make further investigations, personally, regarding the influence of a microörganism in the causation of pneumonia. He gave a synopsis of the literature of the subject. The third question was discussed by Drs. W. H. Robb and H. M. Biggs; the fourth by Drs. T. F. Rochester and Van de Warker; the fifth by Drs. S. J. Clark and C. S. Wood; the sixth by Drs. John Shrady and E. D. Ferguson; the seventh by Drs. G. Griswold, C. G. Stockton, and W. S. Fuller; the eighth by Dr. J. G. Orton.

WEDNESDAY, NOVEMBER 18TH.—SECOND DAY.

MORNING SESSION.

DISCUSSION ON PNEUMONIA.

DR. CHARLES G. STOCKTON discussed the seventh question propounded by Dr. Flint in a brief paper, and said he thought the special manner in which the temperature should be lowered would depend upon the individual case; a single antipyretic would not answer in all cases of elevation of the temperature. He had sometimes used quinine and antipyrin successfully in the same case. Regarding antipyrin, he recommended its use in from fifteen to twenty grain doses, repeated once in eight to twelve hours. When so used, it had never produced any toxic effects upon the heart, and it had had the desired effect upon the temperature.

DR. E. D. FERGUSON'S experience with antipyrin had been similar.

DR. J. G. ORTON discussed the eighth question in a brief paper. He had never seen an unqualified case of relapse of acute lobar pneumonia, during or shortly after the period of convalescence. But one attack seemed to predispose to subsequent ones in the same lobule. He thought pneumonia is a non-infectious essential fever. He also spoke of complications and diseases to which pneumonia predisposes.

DR. F. HYDE had in several cases found evidence at autopsies in cases of acute lobar pneumonia, that there had been early and persistent thrombosis as well as embolism of the veins, and in two cases there was embolism in the arteries as well. This condition, he thought, occurs more frequently than is supposed, and we could see why remedial measures proved of no avail, and why death occurred so early in the course of the disease.

DR. ELY VAN DE WARKER, of Syracuse, then read a paper on the

MEDICO-LEGAL BEARING OF PELVIC INJURIES IN WOMEN,

in which he said that actions at law to recover damages for injuries sustained to the pelvic organs in women

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were becoming quite frequent and involved large sums of money; they were usually brought against corporations, particularly cities and villages, and railroad companies. He cited three illustrative cases, by which it appeared that the facts of the case, could they be obtained by a thorough medical examination, were in favor of the defendant, but the verdict was likely to be in favor of the complainant. Some of the women attributed conscientiously but erroneously their symptoms to the injury sustained, but most of the cases were of a fraudulent nature. In all perhaps there would be found a history of previous pelvic inflammation, or affections which would fully account for the symptoms present. The impossibility of a fall, of some nature, which was the usual accident in these cases, producing such concussion of the healthy uterus and pelvic organs as to cause permanent displacement of the womb, or swelling and pelvic inflammation and abscess, was evident to the physician but not to the simple juryman, whose sympathies were appealed to by a suffering woman standing before him, while the other party to the action was a heartless corporation with a supposed unlimited supply of money.

DR. AUSTIN FLINT, JR., then read an address on

SOME OF THE RELATIONS OF PHYSIOLOGY TO THE PRACTICE OF MEDICINE.

He said that physiology is the only rational basis of scientific medicine; this is true, even should we use the term medicine in its widest signification, including in it the practice of surgery, gynecology, and pathology. A knowledge of anatomy and physiology is a most important requisite in making a correct diagnosis. The necessity for a knowledge of physiology is evident in the study of valvular lesions of the heart, for our ability to diagnosticate heart lesions depends upon our familiarity with the functions of the heart and the sounds produced by the blood-current in health. Dr. Flint analyzed the heart sounds in different diseased conditions of the heart in proof of his assertion that a knowledge of physiology is an important element in scientific medicine.

AFTERNOON SESSION.

DR. ISAAC E. TAYLOR read a paper on

RECTO-LABIAL OR VULVAR FISTULÆ: THEIR CAUSES AND TREATMENT,

in which he spoke of the comparative rarity of the condition. It is very liable to begin with a vulvar abscess, depending upon an inflammation of the vulvar glands, perhaps excited by injury during coition, masturbation, labor, direct injury, or in cold. A small tumor may exist in the labia prior to breaking down into an abscess, perhaps quite movable, and leading to the suspicion of an ovary in Broca's canal. The history of such a case, seen by the author, was given. The tumor constituting the suspected ovary broke, and gases and feces escaped by the small opening. Huguier's plates were shown in illustration of the subject-matter of the paper. The pathognomonic symptom of vulvar fistulæ is the escape of air and thin feces. The vulvar opening is usually small—perhaps so small that it will be found with great difficulty. As to the treatment, he adopted the ligature, being in general the method employed by Barton between 1835 and 1840. The method is simple and efficient; and, in view of the great and serious difficulties liable to attend the use of the knife, he thought it deserves much more general employment. The elastic ligature is to be preferred.

DR. EDWARD M. MOORE then read a paper on

RECURRING LUXATIONS.

That luxations are likely to recur, he would not attempt to prove, for it is a well-known fact. Recurrence of the luxation takes place often not as a result of violence, but of the action of different forces not connected with violence. Some replacements are maintained with great difficulty. Attention was then called to the tendency of recurrence of luxation in different joints, and to the manner of preventing this accident. To prevent recurrence of luxation in the clavicle the elbow is thrown backward and retained in that position by binding the hand to the side by means of adhesive plaster, or, what is better, by means of his figure-S bandage; thus the scapula will be carried nearer the vertebral column.

Several interesting cases in which recurrence of luxation took place in the shoulder-joint were related, and the manner in which the accident is liable to occur was pointed out. His views with regard to luxations occurring in this joint were made clear by certain experiments which he had performed after removal of the flesh about the shoulder, and bringing forces applied upon the arm and forearm to bear upon the ligamentous structures. His experiments illustrated incidentally how it is that in many cases of sprains or supposed injury to ligamentous filaments, the symptoms are as serious and more prolonged than in fractures of bone; for, as was shown in these instances, the ligament gives way only by taking with it a portion of the bone to which it is attached. In luxations at the shoulder, either upon the dorsum of the scapula or into the axilla, examples are met with in which maintenance of reduction is found difficult. The manner in which the luxation takes place is by gravity—allowing the arm to fall, especially if at the same time the arm be turned more or less forcibly outward. Touching upon recurrence of luxation at the hip-joint, the author cited an interesting case which had come under his observation, and had been reported, with two others, by Bigelow, in which a soldier acquired the tact of dislocating and replacing the head of the femur by a certain twisting motion of the body.

DR. FREDERICK HYDE read a paper on

THE DIFFERENCE IN THE SYMPTOMS OF STRANGULATED OBLIQUE INGUINAL HERNIA,

in which the following were the principal points developed:

1. In proportion to the length of time an inguinal hernia existed would the symptoms and signs of strangulation be mild and chronic.

2. In a case of long-standing inguinal hernia in which signs of stricture of the bowel are obscure, there not being evidence of total obstruction of the canal, often it is not safe to wait for fecal regurgitation before deciding that strangulation exists.

3. When strangulation occurs at the first protrusion, the symptoms of strangulation will be found to be more marked.

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4. If hiccough and fecal vomiting existed from nearly the beginning of the symptoms, no time is to be lost, herniotomy should be performed at once.

5. If a swelling exists with symptoms of obstruction of the bowel, the patient complaining of severe pain in the abdomen, but of none in the tumor, and had hiccough, although there is absence of marked general disturbance, a fair trial of taxis should be made, and that failing to reduce the tumor, herniotomy should not be delayed. This remark was based on an interesting case, the history of which Dr. Hyde gave in detail. No fecal vomiting occurred, no pain in the tumor even after taxis, but there was some pain in the abdomen and hiccough. Because of the mildness of the symptoms, the consulting physicians delayed the operation more than twelve days, and when it was finally performed the strangulation was found to have existed within the abdomen. The patient died.

6. If no strangulated portion be found within the external sac, the finger should be passed internally and adhesions sought for in the neighborhood of the opening.

7. Too long a trial of taxis before dividing a stricture should be guarded against, as it prepares the way for the death of the patient after herniotomy.

8. After stercoraceous vomiting has set in taxis should not be supplied, but herniotomy should be performed at once, although the prognosis is unfavorable.

9. If after opening the sac the omentum is found smooth, and no intestine can be detected, the omentum should be opened to learn whether it may not contain a strangulated portion of intestine. It is unfair to speak of herniotomy as a dangerous surgical operation *per se*. The danger attending the operation is due to the condition of the sac and its contents and to taxis and delay in operating.

DR. J. W. S. GOULEY read some notes on the same subject, in which he reached the following conclusions:

1. When doubt arises in the mind of the surgeon respecting the existence of strangulation of the intestine or omentum in case of incarcerated hernia, it is his duty to give the patient the benefit of the doubt by at once resorting to the operation of herniotomy.

2. Delay in relieving the strangulation is often fatal, while herniotomy in a case in which no strangulation exists is not usually harmful.

3. Medicinal treatment is often delusive, and local applications, such as opium, tobacco poultices, ice, etc., are in most cases worse than useless.

4. Persistent taxis is infinitely more dangerous than herniotomy, and such taxis even when it is followed by reduction of the hernial protrusion is often the cause of fatal peritonitis.

5. Another, though rare, effect of violent taxis is the reduction *en masse* of the hernia in its state of strangulation, and its result is known.

6. As a general rule, two minutes of gentle taxis, the patient being in a hot bath, will settle the question as to the possibility of safely reducing the hernia.

7. Therefore, it may be said with propriety that the less taxis, the less ice, the less other topical applications, the less opium, the less general or special meddlesome interference which often do serious injury to the intestine, the better the chances of recovery in the event of herniotomy. This is particularly the case in femoral hernia.

He said he had abstained from incising the neck of the sac in femoral hernia, but had made divulsion by simply insinuating the index-finger through the free opening made in the sac until it entered the abdominal cavity, and had had no trouble in effecting reduction of the intestine, the object of the procedure being to avoid division of the obturator artery should it be abnormally situated. He coincided with Dr. Hyde that hernia is not *per se* a dangerous operation. Dr. Gouley said further that if it seemed necessary in a case of inguinal hernia, after herniotomy, he would open the abdominal cavity in order to relieve the strangulated intestine.

NIGHT SESSION.

DR. ISAAC PURDY presented

A CURSORY REVIEW OF THE EPIDEMIC AND ENDEMIC DISEASES OF SULLIVAN COUNTY DURING THE LAST THIRTY-FOUR YEARS.

The first years of the period, commencing in 1850, pneumonia and fevers of asthenic type prevailed, in which it was common to bleed, to employ cathartics, diuretics, and a depleting system of treatment; and this course seemed to be indicated as being followed by the best results. About the beginning of 1854 typhoid fever was heard from in the distance, and soon reached Sullivan County, and for several years pneumonia and other forms of disease took on a typhoid character, and this period was marked by the fact that in nearly all cases the asthenic form of disease showed itself; a depletory course of treatment was followed by the worst results. Close attention had to be given to the diet, encouraging nutrition, and to checking excessive discharges. About 1860 diphtheria began to prevail in Delaware, and marched up the Delaware River, and existed in Sullivan County in the epidemic form for about five years, being very violent, and carrying away many patients. The odor of persons suffering from the disease was peculiar, and could be recognized at a great distance from the sick-bed. In the author's opinion, it was a constitutional, not local, affection, although the local deposit, constituting diphtheritic croup, was present.

About 1862–63 it was present in the form of black fever, petechial fever, etc., being in places very malignant. Afterward it again appeared as genuine diphtheria of the throat. In these cases they applied turpentine and sweet oil to the throat at night with benefit. During a part of this period dysentery prevailed, first severe, then of mild type. Scarlet fever was present at intervals of about five years, sometimes of severe, sometimes of mild character. Rubeola or measles had occurred at different periods, but in general required little treatment. Occasionally diphtheritic cases occur up to the present time, but the contagion was generally brought from afar. Typhoid fever continued to prevail more or less, especially in the fall months; typhoid pneumonia during the winter, up to 1881. The spread of typhoid fever up the Hudson and its tributaries occurred at one period. The highest point was situated 1200 feet above the level of the sea at Montauk. The treatment consisted chiefly in moving the bowels, particularly by calomel, and then genuine as a sheet-anchor.

(*To be concluded.*)

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CINCINNATI ACADEMY OF MEDICINE.

Stated Meeting, November 16, 1885.

THE PRESIDENT, SAMUEL NICKELS, M.D., IN THE CHAIR.

(Specially reported for THE MEDICAL NEWS.)

DR. BERNARD TAUBER read a paper on

THE LOCAL TREATMENT OF LARYNGEAL TUBERCULOSIS.

(See page 596.)

DR. A. B. THRASHER gave expression to his disbelief in the ability of any plan to prolong life in cases of laryngeal phthisis. The instances in which a favorable result has been claimed for a certain plan of treatment, usually depend upon errors in diagnosis. With reference to the relation of the laryngeal affection to phthisis of the lungs, referred to without comment by the essayist, the speaker expressed the belief that the disease generally, if not always, commences within the chest, the affection of the larynx being in the same proportion a secondary disease. Prolonged expiration, as referred to, is the very earliest indication of the presence of disease in the lungs. It is further possible, in many of these cases, to effect a cure of the disease simply by proper hygienic treatment without the use of remedies. The local treatment, in these cases, is not of much importance with regard to the final result of the case, and in making a choice of remedies we should confine ourselves to those which will give the most complete temporary relief from suffering. Inhalations of carbolized steam have been employed with benefit, but, so far as the speaker was aware, the remedy had not been employed to so vigorous an extent as was recommended in the paper. The production of anæsthesia in the larynx in the second stage of tuberculosis is of great importance. A number of agents have been employed for this purpose. Dr. Carl Seiler claims to relieve the pain by the local application of the nitrate of silver. If employed, the remedy must of course be used in concentrated solutions, because of the painful effects otherwise produced. In the treatment of the third stage he agreed with the authors who recommend the use of morphia by insufflation combined with starch powder. This method should not, however, be practised within a shorter interval than an hour before a meal, for it requires fully an hour to obtain the full effect of the remedy. The relief afforded by it is only transient, it is true, but the method has the advantage of being easy of application, not requiring the skill of a specialist, or indeed of the physician.

The opinion that tuberculosis, when found in the larynx, is always a secondary affection, the speaker believed is further demonstrated by the fact that no post-mortem examinations have yet been conducted upon persons dying with laryngeal phthisis, in which the affection had been positively diagnosticated during life, where the disease was not found also in the lung.

DR. JAMES G. HYNDMAN remarked that the hopes offered us by the essayist of being able to cure a disease whose prognosis is almost universally fatal, would be very cheering, did not the combined and uniform experience of the leading specialists of the world prove them fallacious.

Mackenzie knows of but four cases in which he had reason to believe a cure was affected, and these cases were proven to be tubercular by the presence of well-marked signs of pulmonary disease. While not denying the possibility of tuberculosis primarily affecting the larynx, the speaker thought it quite improbable in view of our present knowledge upon this subject, and quoted the results of Heinze's numerous observations to the effect, that no post-mortem examination had ever been made in a case of laryngeal phthisis which did not show well-marked evidences of the disease of the lung, and the pulmonary affection appeared in all those cases under his observation to have been well advanced. In the earlier stages of laryngeal tuberculosis, the local appearances are such as may result from numerous conditions causing malnutrition, and it is only their association with distinct evidence of pulmonary damage which renders positive a diagnosis of laryngeal phthisis. The cures effected by the essayist were of cases in the earlier stage, and it is much to be regretted that the reporter gave no positive statement of the condition of the lungs, for it is in just these cases we most require the corroborative evidence of pulmonary disease and thus be able to exclude all danger of mistaking the cure of a trivial, for one of a very dangerous malady. The speaker agreed in the main with the essayist's plans of local treatment, but believed that it must be mainly palliative and that our efforts must be principally directed to the primary disease in the lungs and the general weakness resulting from the combined pulmonary and laryngeal affections.

DR. E. G. ZENKE thought it erroneous to consider phthisis of the larynx only a secondary affection. M. Jaccoud, among others, advocates the doctrine that phthisis can be cured if properly treated. Whether or not the bacillus is the cause of the disease, is of little practical bearing upon the treatment, so far as we know at the present time. If the disease can be removed from the lungs, it should certainly be more easily eradicated from the larynx; and a man's skill in the treatment of the disease will consist in his ability to apply proper remedies to the larynx.

DR. JAMES M. FRENCH expressed his preference for the term tuberculosis instead of the word phthisis, which appeared to be the favorite with the speakers of the evening. The former term is more in accord with modern nomenclature, as well as with the more recent views on the pathology of the affection. For we now look upon the disease as one having a special dependence upon a definite microörganism, and not simply as a destructive process. He further objected, *a priori*, to the view that laryngeal tuberculosis is always a secondary affection. If the disease owes its origin to a germ, we can readily understand how it may be produced in the mucous membrane of the larynx as readily as in that of the smaller bronchi, and there is no more reason for pronouncing the affection secondary when found in the larynx than when found in any other tissue of the body, where it is of frequent occurrence. It is only when an early stage of the affection is observed in the larynx, in connection with a more advanced invasion of the lung, that it should be pronounced secondary. If, however, the disease of the larynx is advanced, and that in the lung is indicated by only such signs as a slight prolongation of expiration, in-

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crease of vocal or whispered resonance, or a faint crepitation in some part of the lungs, all recognized as among the earliest manifestations, we may with propriety consider the pulmonary lesions secondary to the laryngeal, or simply coincident to them.

With reference to the local treatment, the experience of the speaker did not warrant his expression of an opinion. But as it is always advisable to combine with the local treatment some course of general medication, he desired to express his confidence in the administration of the bichloride of mercury in combination with the sulphate of strychnine, from which he had in several instances obtained unquestionably good results, in both the early and median stages of the disease.

DR. HYNDMAN said that it is an easy matter for one to state his inability to understand why a lesion is or is not primary in a certain organ, but that so long as statistics do not coincide with the view, it can have little bearing on the result. The statistics to which he had just called attention were to his mind sufficient to indicate that the occurrence of primary tuberculosis of the larynx is exceedingly rare. He desired also to call attention to the use of morphia, dissolved in glycerine and water, as a local application to the larynx. The glycerine renders the effect more lasting by retaining the remedy longer in contact with the mucous membrane.

DR. ZENKE remarked that in all probability the reason for not finding tuberculosis unassociated with the pulmonary affection upon post-mortem examination, lay in the fact that tuberculosis of the larynx is rarely a fatal disease; and although it may exist for years, the death is usually the result of lesions elsewhere, independent, it may be, of the laryngeal affection.

DR. JOSEPH RANSOHOFF was gratified to hear one of the speakers support the ground that laryngeal tuberculosis is not of necessity a secondary affection. That such a position is tenable, he firmly believed. Only a few weeks ago he was consulted by another physician with regard to the propriety of operative measures, whether it should be to open the larynx and remove a tubercular depbsit, or totally extirpate the organ. The disease was very advanced and progressive in character, but the most thorough examination of the lungs failed to reveal the presence of any pulmonary disease. That the disease was not one of syphilis of the larynx, was well established by the fact that it had been examined by several gentlemen of skill, among them the speaker of the evening, and by each pronounced unmistakably tubercular in character. The disease, when seen by the speaker, had progressed to the extent of destructiveness, producing dysphagia, and even stenosis.

With reference to the statistics that have been quoted, the speaker said that while it is perfectly proper that we should be guided to a certain extent by the views of such men as Morell Mackenzie, it is yet highly probable that within the course of five years their views will undergo considerable modification. Their views have been derived from clinical experience, but at present there is a tendency to disregard clinical experience for a more scientific view of disease. We have tubercular disease in nearly all other parts of the body, including the skin, tongue, pharynx, tonsil—and why not in the larynx? And what is of still more value, a number of primary causes have been recently reported.

DR. ROBERT W. STEWART reported a case of tubercular disease of the larynx without other discernible lesions, in which recovery followed the patient's removal to more healthy climates—Florida in winter and Colorado in summer. The speaker thought it a matter of little importance whether phthisis is tuberculous or not, and in some cases he was inclined to doubt their identity. Further it does not necessarily follow that, where tuberculosis of the larynx is found associated with advanced tuberculosis of the lung, the disease commenced in the latter organ. There is sufficient ground for considering phthisis sometimes of primary origin in the larynx.

DR. TAUBER, in closing the discussion, called attention to the fact that in his paper he had not quoted an authority. He had desired to express only his own experience. In a review of the literature of the subject he had found eight cases of primary tubercular infection of the larynx, but this was a question which he had no intention of raising by his paper.

With reference to the anæmic stage of laryngeal tuberculosis, he agreed with the speaker who stated that such an appearance may be associated with a number of other conditions, but when it is associated with the inactivity of the larynx and a relaxed condition of the cords, with the various subjective symptoms usually seen, it is almost pathognomonic of the disease. As for the use of the nitrate of silver, he had employed it in solutions of varying strength, up to 140 grains to the fluidounce, but had found its effect not to be sufficiently lasting. The point he desired to lay most stress upon is the treatment of the third stage of the affection by the method he had described. It enables the patient to eat and thus to retain his strength, in this manner prolonging his life.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, November 3, 1885.

THE PRESIDENT, W. P. BIRDSALL, M.D., IN THE CHAIR.

DR. LEONARD WEBER read a paper on

A CASE OF OPHTHALMOPLEGIA EXTERNA.

Peter W., æt. 52, father of a number of apparently healthy children. Has worked in an iron foundry for the last thirty-two years. His mother died of pulmonary hemorrhage at 64 years of age; his father died at 53 of typhoid fever. Has a brother and sister living, in good health. He has never had syphilis. Fourteen years ago he was under treatment for hæmoptysis, accompanied by fever and other signs of acute lung trouble. But he recovered in the course of a year or so, and has been able to continue his work since. Nevertheless, the signs of old pulmonary trouble are well marked in the interscapular space, particularly on the right side. In the course of years the patient sustained various injuries about the head, but no fracture of the skull. At no time did his condition give any evidence of renal or cardiac disease. Since February 1, 1885, he experienced considerable and lasting pain at the back of the head on the right side. In getting out of bed on the morning of February 23, of the present year, he felt somewhat dizzy, and noticed a pain in the right temporal, extending to the occipital, region. He also found that he could not use his eyes as on the night before. He continued to

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work, however, and on March 9, 1885, consulted Dr. Mittendorf, who reports that the use of the patient's right eye was lost early in childhood. The left eye gave him no trouble until recently. On March 9th both eyes were found to have turned considerably toward the nose. Neither eye can be moved in the direction of the external rectus. The pupils slightly contracted, accommodation good. Treatment: Hypermetropia necessitating use of strong glass for left eye to make reading possible. Vision of right eye, which has a corneal macula, very poor. Acuity of vision of the left eye (not fairly tested, patient presenting himself at night) about 20 or 30. Marked hyperæmia of the left disk. Interior of eyes normal. Paralysis extended to third nerve, but was not complete. Patient would move his eyes downward considerably at times, but he seemed to have lost control over the movements of the muscles, and if directed to look in a certain direction, he could not not do it. On March 1st he first noticed some numbness and a cold feeling from the fingers up to the middle of the arm on the right side. While this sensation was unpleasant, it in no way interfered with his work of using a heavy hammer, but about April 15th his arm became weak. At the same time coördinate muscular action became impaired. He was unable to direct blows with precision, often striking an inch to either side of the object. He soon had to quit work.

He consulted me on May 14th. At that time the eyeballs were almost immovably fixed. Nevertheless there was complete paralysis of the external recti only. The levatores palpebrarum were not affected, neither were the muscles of the iris. The right hand was colder than the left. Sense of touch diminished, actual muscular power also. Visible trembling and gradual dropping of wrist when the extremity is extended horizontally, showing weakness of extensors. Slight exaggeration of patellar tendon reflex on right side.

The patient's speech was not very articulate; some dysæsthesia existed already. There was no dysphagia, and no symptom indicating disturbance of cerebral nerves other than of the fifth pair. The gait was unsteady, resembling that described by Nothnagel in connection with certain cerebellar affections. The lesion producing the above symptoms I am inclined to locate in the pons. As to its nature, it is probably a neoplasm of syphilitic or tubercular origin.

The patient was ordered iodide of potassium in doses beginning with ten grains three times a day, which was increased by five grains every week. In this way the dose was carried up to forty grains three times a day. From June on, a noticeable improvement began, and by September 2d his speech had become almost normal. The power of his right arm was much increased, there was no more headache, and the eyes had largely recovered their mobility.

On October 30th it was observed that the eyes could be freely moved, although some paresis of the external recti still remained. The patient was then taking forty-five grains of the iodide three times a day. Some spitting of blood now occurring, the remedy was discontinued for two weeks, and then resumed with an initial dose of twenty grains.

I believe the anatomical lesion to be situated in the left half of the pons, near the tegmentum, involving the lemniscus, and extending beyond the raphe, some little distance into the right half of it.

DR. W. M. MITTENDORF said the author of the paper was to be congratulated on the result of the treatment in this interesting case. As stated in the paper, when the patient visited him, there was this paralysis of the external recti, and he thought there was also a slight defect of the facial nerve, and he was inclined to place the lesion in the upper part of the fourth ventricle, but, as motor oculi paralysis developed, he came to the conclusion that there was a more extensive lesion than he had at first supposed. An interesting feature in the case was the fact that, while there was ophthalmoplegia externa, there was at no time while the patient was under his care, any affection of the intrinsic muscles, and this fact, according to recent investigations, pointed to a lesion below the aqueduct of Sylvius. The cases of ophthalmoplegia externa without other symptoms, were very few. He had now under his care a young man with ophthalmoplegia affecting both eyes, in whom there had been no change for two years. The lesion, he supposed, was to be placed in the region of the corpora quadrigemina. At one time he thought there were real ataxic symptoms, but he was unable to make out a clear case of locomotor ataxia.

DR. T. R. POOLEY thought the fact that the patient struck to the outer side of the body, which had been attributed by the author to paresis, might have been caused by faulty projection depending upon paresis of the external rectus muscle. He had never seen a case of complete paralysis of the ocular muscles with so satisfactory results.

DR. WEBER remarked that at first there was no tendency to strike outward. In reply to a question by Dr. Spitzka, he said there had been no wasting of the muscles, although the general nutrition of the patient had not been at all times equally good.

THE PRESIDENT had reported two cases to the American Neurological Society, which in some respects resembled this case, but in some other respects there were important differences. He reported them as cases of ophthalmoplegia externa, according to Hutchinson's nomenclature, and they were, strictly speaking, cases of this sort. The ciliary muscle and the iris were not involved at any time, while the external muscles of both eyes were involved to a greater or less degree. No other nerve tract in the body could be found defective. The two cases had remained about in the same condition, with slight improvement, for two years. It seemed to him, however, that the cases which Hutchinson had reported under the name ophthalmoplegia externa did not all belong to that class, for in only two or three were the external muscles of the eye alone affected. Most of his cases were of a complex character. It seemed to him that the pathology of these cases must vary greatly. The lesion would probably be found to vary, not only in location, but also in character. His cases, he thought, were due to a slow degenerative form of disease, similar to that in progressive muscular atrophy. Certainly some of Hutchinson's cases were of a multiple character, and probably in many others the lesions were multiple.

DR. E. C. SPITZKA was much pleased to find a doubtful point in the past history of the case cleared up by

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Dr. Pooley's discovery of a residual paresis of the other rectus externus. It adds, however, to the difficulties of localization, though not incompatible with the diagnosis of Dr. Weber. With regard to Dr. Pooley's suggestion, that the loss of skilled motion of the right side is due to the eye trouble, that possibility had already been taken into account, and disposed of for the following reasons: First, the motor disturbance was not present when the eye trouble was at its height, nor present when the latter began. He believed ophthalmologists will agree that locomotor trouble is apt to be proportionate to the intensity of the eye complaint, and, if anything, to be regulated, provided the eye trouble remains stationary or improves. In this instance, however, we have eye trouble at its maximum without arm trouble, and arm trouble developing as the eye trouble improves, and manifested when the eyes are closed. Besides, we must bear in mind that, as the patient has not had the use of his right eye from childhood, he would not be as likely to be disturbed in his movements as patients with binocular vision would be. He believed the oculo-motor disturbance can be best accounted for by a regional extension of lesion in that part of the tegmentum which lies between the trochlearis and abducens nuclei, and where certain coördinating tracts run.

DR. WEBER asked Dr. Mittendorf whether there were not for a time symptoms of hemianopsia.

DR. MITTENDORF said that there was no lesion of the retina or nerve when he examined the patient.

DR. M. A. STARR asked whether there had been any ptosis.

DR. WEBER replied in the negative.

DR. STARR thought that a lesion lying outside of the cerebral axis, as a syphilitic meningitis, affecting the adducens nerves at their exit between the medulla and pons, might explain the symptoms more intelligibly, than to suppose a lesion in the floor of the fourth ventricle affecting the nuclei themselves. Of course, such a lesion would yield to syphilitic treatment, whereas he could not conceive of a nerve nucleus' being destroyed and again restored. If the third nerve were involved, he might suppose the meningitis had extended a little further forward. He had the privilege of seeing a case in Baumberger's wards at Vienna three years ago, in which the third, the fourth, the sixth, the seventh, and the eighth nerves upon one side were paralyzed, and Baumberger made the diagnosis of lesion at the floor of the fourth ventricle, involving the nerve nuclei from above downward, especially so as there were signs of atrophy in the facial muscles. The autopsy showed localized meningitis affecting these nerve trunks after their exit from the cerebral axis.

DR. WEBER again mentioned the symptoms present, and said that, so far as the oculo-motorius was concerned, there certainly was an affection of the superior and inferior recti.

DR. E. C. SEGUIN had not been convinced, from seeing the patient this evening, that there were any ataxic symptoms in the right upper extremity. The dropping of the fingers might indicate either weakness of the extensors or the loss of a certain amount of muscular sense, which might be due to a lesion situated in many places besides the pons. He was inclined to Dr. Starr's view. The discussion seemed to indicate the vanity of theoretical pathology.

DR. SPITZKA, in a crude way, had always regarded muscular sense disturbance as a factor of ataxia, and he believed authorities generally would so consider it.

DR. SEGUIN said that Erb recently described a case in which there was ataxia, but all kinds of sensation were perfect.

DR. SPITZKA replied that that had nothing to do with the question. Ataxia is of different kinds, cerebellar, spinal, due to ordinary contact, to muscle sense, space sense, and coördinary disturbances, sometimes singly, sometimes combined; but muscular sense disturbance is mentioned in the definitions of ataxia by our best authorities, and he should like Dr. Seguin or any one to formulate a general definition of ataxia which should declare muscular sense disturbance not to be a factor. It is precisely because there is muscular sense disturbance that he believes the lesion to be one of the pons. The interolivary layer happens to run in the deep part of pons. In those levels where the cranial nerve symptoms of this case are possible, he had shown, if any one case be conclusive, that this layer is the muscular sense tract, and the case agrees with others of its kind. There is a combination of slight paresis with the muscular sense disturbance which is almost characteristic of certain pons diseases—it requiring but an extension of the lesion across the deep transverse pons fibres to involve the pyramidal tract bundles. With regard to the suggestion of a meningitis, it does not seem to him to harmonize either theoretically or with experience. It is true that the affection of both abducent nerves might be accounted for in this way. But there are other symptoms which the supposed lesion must accommodate. How to account for the arm symptoms on this ground. he did not know. There are too many important nerves near the hypoglossal, whose function is intact, to account for the dysæsthesia on the ground of meningitis. Besides, there is no true paresis of the hypoglossal. Its intrinsic movements are well executed, and there is no evidence of either nuclear or peripheral hypoglossal palsy—in other words, it is some higher tract, the speech tract, that is involved—we know that this runs somewhere in the pons—near the raphe, whereby another nerve, the fifth, is affected in its decussation, thus accounting for the bilateral disturbance of face sensation. But the strongest objection to the meningitis theory is that it would have us believe it possible that the third pair can be diseased so totally in its extracerebral course or intracerebral course, for that matter, as to cause total paralysis of ocular motion, without any affection of the pupil, the accommodation, or the levator palpebræ. He has never heard of such a case, and does not think there is one reported, and he does believe such a case possible. If there were no other reasons for suspecting pons disease, it would, in his opinion, be confirmed by the character of the ocular paralysis; but, in addition, we have the almost pathognomonic combination of paresis and ataxia. True, Dr. Seguin calls it muscular sense disturbance, which it is undoubtedly—with this difference of interpretation and definition, that he says it is not ataxia, and Dr. Spitzka considered it to be such.

DR. STARR thought that the abducens nuclei could not be involved, together with the interolivary layer, without affecting the formatio reticularis, which ought to show sensory symptoms if affected.

DR. SPITZKA said that the difficulty seemed to be that

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Dr. Starr had only one particular level of the pons in mind, one not necessary involved in this case. Even allowing the lesion to be in the level spoken of by Dr. Starr, the difficulty he discovers does not seem to him to be as he states it. That no symptoms referable to the formatio reticularis are present, can constitute no objection, as long as the function of that part which lies between the raphe and the abducens roots is unknown. The abducens roots, however, skirt and partly perforate the interolivary layer, and so far it is possible to have coincident abducens and muscular sense disturbance; the real difficulty in this case is to account for the double involvement of the abducens, without the bilateral involvement of the interolivary layer. As he understood Dr. Weber when he presented the case, he supposed the lesion to be in the anterior third of the pons, with a dorso-mesal, and possibly caudal, extension too near the ventricular floor. Here the altitude of the tegmentum is extremely low, a comparatively small lesion may involve the interolivary division of the lemniscus—he meant its continuation, the raphe, with its trigeminal decussation, the posterior longitudinal fasciculi, the pyramidal tract slightly, and the speech, either after Raymond and Artaug, or the other theories. The advantage of this explanation over the others offered is, that it requires the smallest lesion to harmonize with the symptoms, while grave objections can be urged against every other location, particularly the one which would locate the lesion as a meningitis involving peripheral nerves.

He reiterated that till the inconsistencies of the oculomotor paralysis are explained away, insuperable obstacles oppose the meningitis theory. Possibly Dr. Weber's reference to the voluntary control of single ocular muscles might lead to misapprehension. No ocular muscle is capable of isolated movement under voluntary effort, but groups of such are. There is a ready-made coördinated mechanism of which the posterior fasciculus is probably the important mediator, which regulates the coördination of both globes, and it is here where the trouble lies.

DR. LEONARD WEBER then read a paper entitled

A CONTRIBUTION TO THE STUDY OF LANDRY'S ASCENDING PARALYSIS.

It was in 1859 that Landry described a few cases of ascending paraplegia with negative post-mortem results as regarded the spinal cord, to which he gave the name of "paralysie ascendante aigue," and in the same year Kussmaul reported two rapidly fatal cases of paralysis in which the post-mortem appearance of the cord was apparently normal. The attempt of Petit fils to classify Landry's ascending paralysis among the varieties of poliomyelitis anterior acuta or subacuta, has been repeated quite recently by Prof. Immermann, but in the light of later researches and of negative results of autopsies made by Westphal, his theory is hardly tenable. Another and perhaps less objectionable theory is that of Rogers, who believes that many cases of the favorable form of Landry's paralysis are really polyneuritis acuta, of infectious or other origin, in which the spinal cord is either not at all or only secondarily affected. In an article in *L'Encephale*, No. 2, 1885, this writer instances the clinical picture presented in many affections of the spinal nerves, particularly in polyneuritis, in which the symptoms are very similar to those of disease of the medulla spinalis. In cases of simultaneous peripheral and spinal affection a correct diagnosis is of course difficult, but although we have hitherto, says Rogers, paid almost exclusive attention to the central lesions, the course of the disease often bears evidence of the fact that the lesion ascended from the periphery to the centre, and he claims that not only do many cases of Landry's paralysis belong in the category of peripheral nervous affections, but also Duchenne's "paralysie générale spinale subaigue," and "paralysie diffuse."

Dr. Weber then gave Rogers's description of the usual course of the disease, and said regarding the etiology that we were still in the dark; Westphal laid much stress upon infection, and Roger drew attention to the frequent coincidence of polyneuritis and tuberculosis. Erb said as late as 1879, that cases of progressive polyneuritis ought not to be mistaken for acute ascending paralysis, since the differential diagnosis is sufficiently established by the sharp pains, anæsthesia, and paralysis, limited to the affected nerves, and their rapid loss of electrical excitability.

On the strength of these recent observations, he thought it might be justifiable to speak of two forms of acute ascending paralysis—the well-characterized spinal and the less well-known peripheral. Acute ascending spinal paralysis is characterized clinically by motor paralysis, beginning usually in the lower extremities and advancing with some rapidity to the trunk and upper extremities. The bladder and rectum are but little affected; sensation is nearly normal, and the affected muscles do not waste much, or suffer any change in their electrical excitability. More or less fever may be present, and death from asphyxia is a not very unusual termination. No cord lesions are found at the autopsy. Landry's paralysis is more common in men than in women, and occurs with greatest frequency between the ages of twenty and forty years. It is thought by Landry, Westphal, Roger, and others, that infection, of an unknown character as yet, may be the real determining cause of the disease, and it is significant to note, that in some carefully made autopsies, changes similar to those occurring in other infectious diseases have been found in the liver, spleen, lymphatic glands, and intestinal follicles. In the fatal cases death may occur at a period of the disease varying from two or three days, to three or four weeks. But the average duration seems to be from eight to twelve days. When recovery ensues improvement begins usually within a few days after the disease has been fully developed, restoration occurring first in the parts last affected, and progressing very slowly.

Some cases of poliomyelitis anterior subacuta simulate very closely acute ascending paralysis, and it may not be until the development of atrophy and the loss of electrical excitability that we can be certain of the presence of anatomical lesions in the spinal cord. But a well-marked case of poliomyelitis anterior acuta is not progressive, does not attack the medulla oblongata nor lead directly to a fatal termination; the loss of faradic excitability and the muscular atrophy develop rapidly. In very light cases a doubt might arise in diagnosis. In acute general and infectious myelitis we always find fever, marked sensory disturbances, early loss of all the reflexes, paralysis of the sphincter, diminished faradic

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excitability, bedsores, and a rapidly fatal termination, Certain forms of spinal syphilis resemble closely Landry's paralysis, and the diagnosis can often be determined only by the history of the case and the positive results of specific treatment. The prognosis of acute ascending paralysis is always serious, as it is impossible to tell at the beginning whether a case will result in recovery or death. Antisyphilitic treatment has given doubtful results, but better have been obtained from the wet pack or warm baths followed by cold affusions. Of remedies the best would seem to be iodide of potassium and ergot. The application of a continuous current along the spine is recommended by Erb.

The author then related the following case, which had been observed by himself: On December 20, 1880, he was called to see J. H., a butcher, thirty-one years of age, of apparently good constitution, no hereditary taint, syphilis denied. In early life he suffered often from intermittent fever. At the age of twenty-one he went to work in a barometer factory, and after some time began to grow weak, had occasional slight tremor. and frequent vertigo, but no salivation or other sign of mercurial poisoning. These troubles increased, so that he was compelled to give up his work after four years. He then spent four years in the West, and returned home in good health two years ago. About three weeks before he was seen by Dr. Weber, the patient's horse ran away with him in his open cart, and he was obliged to exert all of his strength to control the animal. He received no concussion or apparent injury, but felt tired and ill all the afternoon. The next day he kept about with difficulty, and the day following felt somewhat ill, and had slight fever; and, after some days of paræsthetic feelings, such as numbness and tingling creeping up from the fingers, he gradually lost the use of both arms; and two weeks later, after similar sensations proceeding from the toes upward, the lower extremities became also paraplegic. No paresis of the sphincters was noticed then or at any subsequent time. The stools were retarded. The intercostals and other muscles of the trunk remained intact, and there were no symptoms indicating involvement of the medulla oblongata, but the patient felt some pain along the spine, and continued to have pain and numbness here and there in the extremities.

Up to the time of Dr. Weber's visit the case had not been examined with special care. The author found the patient still unable to do more than move his limbs slightly while in bed; he could neither stand nor walk, nor had he the power to grasp firmly any object. Cutaneous sensation appeared to be normal, but the patellar and tendo Achillis reflexes were absent. The limbs were not wasted, and the muscles responded to electrical stimulus. Pulse and temperature were normal, and examination of the urine gave negative results. The slight improvement of the paralysis, noticeable to the patient at the beginning of the fourth week, had not progressed any further. Ascending myelitis and poliomyelitis were excluded, and the diagnosis made of ascending paralysis, Landry's. It being impossible to carry out at his home a systematic course of electrical treatment, with massage and warm baths, which seemed to be indicated, the patient was removed to Roosevelt Hospital, where the late Dr. Goetyky became interested in the case. He agreed with Dr. Weber as to the probably nature of the disease, and also looked upon the chances of recovery as good. The paitent was discharged cured on the thirtieth day, and was soon able to resume his occupation. He called at Dr. Weber's office October 30, 1885, at which time he appeared in fair health, could walk briskly and firmly, and said he was well able to attend to his business, but he required more sleep than he did five or six years ago. He had occasional backache, but no lancinating pains; the bowels were somewhat constipated; the urine normal; the patellar tendon reflex was totally abolished on both sides, and the patient could not stand very well on one foot when the eyes were closed. The pupils were normal. There were no sensory disturbances, and no paræsthesia.

The author then related briefly two cases recently reported by Sorgenfrey and H. Mietks, in which there was early loss of the patellar and tendo Achillis reflexes, but in which, as opposed to his own case, the reflexes returned after the complete recovery of the patients. He also mentioned a case of Immermann's, in which the diagnosis wavered between anterior poliomyelitis and Landry's paralysis, and in which, at the autopsy, there was found recent inflammation of the anterior horns in the cervical, dorsal, and lumbar regions of the cord. It was this case which led Immermann to conclude with Petit fils that both these clinical pictures might be due to the same morbid process, differing only in degree.

DR. E. C. SEGUIN had not seen a case of Landry's disease, but he had always had a strong suspicion that there was great similarity if not identity between that disease and poliomyelitis acuta. The mere matter of ascension did not seem to him to be of so great importance in the diagnosis. The views which, when a pupil, he had heard Brown-Séquard frequently express with regard to ascension of spinal symptoms had always seemed to him very reasonable. They were that ascension of symptoms might be apparent when they did not represent any ascending lesion in the cord; they were due to a change in the depth of the lesion in the cord. Suppose, theoretically, a case of paralysis of the arms, with later paralysis of the legs; it is not at all necessary to suppose a descending lesion in order to explain the descending symptoms; a change in the depth of a lesion which extends but a little ways up and down the cord will account for the descent of the symptoms. In the same way we could account for ascending symptoms without supposing an ascending lesion in the cord. Many authors lay stress upon the value of negative symptoms in the diagnosis of Landry's paralysis—such as absence of degenerative reaction and muscular atrophy; but it is equally true that in many cases of poliomyelitis these symptoms are retarded. He regarded Immermann's case as instructive, inasmuch as it shows the similarity if not the identity of the two diseases; the difference may be in exact location or in the virulence of the affection.

DR. PECKHAM described the symptoms in the case of a girl sixteen years of age, whom he saw only once, and made a diagnosis of acute poliomyelitis, following exposure by sitting on a rock at a picnic. He gave a favorable prognosis. The case was reported by Dr. Rockwell before the American Neurological Society, in June last, as one of transverse myelitis, with recovery. Con-

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siderable discussion followed with regard to the nature of the disease.

DR. SACHS thought that while Immermann might entertain the idea that the pathological process in Landry's disease and poliomyelitis is the same, he did not suppose that he believes the lesions to be identical in localization. While the question of infectious origin has not been demonstrated in either acute myelitis or Landry's disease, Dr. Sach's thought it deserved investigation.

DR. WEBER closed the discussion, reviewing the differential diagnosis between Landry's paralysis and poliomyelitis anterior acuta.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, November 10, 1885.

THE PRESIDENT, ROBERT F. WEIR, M.D., IN THE CHAIR.

DR. L. M. YALE read a paper entitled

REMARKS ON EXCISION OF THE HIP.

(See page 592.)

DR. MARKOE said that the paper was so statistical in character that there was hardly room for discussion, and that it contained extremely interesting and very valuable accumulation of results obtained by different operators. So far as he had been able to discover, nothing appeared in the paper which indicated that the danger of tubercular infection was either greater or less in those operated upon than in those not operated upon.

DR. YALE said that was the conclusion, except in this one instance. Caumont analyzed all the cases treated in every way, between one and two hundred in all, and drew the conclusion that tuberculosis in no way is relieved by exsection; indeed, one-third died after excision, and one-fifth of his suppurative cases without exsection. Of course, that was not a sufficient large number of cases to settle the question.

THE PRESIDENT asked whether we are not premature in laying much stress on general infection after an operation upon a tuberculous bone or joint, as it was a matter which had not been brought to our notice, especially with reference to later pathological developments, until within the last two or three years. He should feel unwilling to accept such statements as conclusive until a larger experience had been obtained. This inference, if received as final, would cut off all attempts at operative interference for the purpose of getting ahead of tuberculous disease in bones and joints, and would render operative interference unjustifiable.

DR. C. T. POORE thought that private statistics should not be put in comparison with hospital statistics, because statistics derived from patients among the better classes are more favorable with regard to the expectant plan of treatment. He did not believe that statistics in general of excision of the hip-joint in hospital cases would show more than thirty-three per cent. mortality, and in the same class of children treated expectantly without operation, his impression was that mortality is greater than after excision.

He was unable to see, while persistent suppuration exists, how one can determine whether or not he had to deal with simple caries of the joint, or with a sequestrum which cannot be removed until an operation is performed. Besides, it is a serious question whether many cases of extensive disease of the acetabulum can ever get well without an operation, and whether an operation in those cases will remove that source of danger.

DR. F. LANGE thought it generally conceded that a comparatively large percentage of cases of hip-joint disease would entirely recover under proper conservative treatment, without excision of the joint. Even extensive destruction of bone does not exclude spontaneous recovery and comparatively good functional result. He has observed so much destruction of bone, that, at last, the trochanter was considerably above Nélaton's line, still without noticeable suppuration, and, at the end, with some mobility and a very useful limb.

He thought it so much a point of experience as to whether, in a given case, one should follow out conservative treatment or resort to more radical interference, that only the long-continued observation of a large material might entitle us to draw general conclusions. He must say that, as a principle, he was rather inclined to push the conservative treatment as far as possible; and his impression was, that even in cases presenting a more serious aspect, if only all the indications of hygiene and orthopedy are fulfilled and retentions of pus prevented as much as possible, good results can be obtained. Further, he thought that if by consequent general treatment one succeeds to alter in a favorable way the constitution of the patient and to check the progress of the local tubercular process, that then any kind of surgical interference will be followed by more satisfactory results, as far as complete recovery is concerned. Though feeling convinced that small particles of necrosed bone may be absorbed by the action of vigorous granulations, it is beyond doubt that a large percentage of cases will not recover *entirely*, unless tubercular sequestra are removed. Hence, eventually for these cases, the indication of excision falls into the scope of consideration. He had repeatedly tried to avoid total excision, and to perform more of a sequestrotomy, but he must say, that in all cases but one, he was obliged to add excision of the upper end of the femur, in order to get sufficient access to the diseased parts as would enable him to remove with some degree of certainty the structure involved. The one case above mentioned, in which several tubercular sequestra were removed from the anterior aspect of the acetabulum without touching the head of the femur, except to scrape away quite an amount of granulations, healed apparently, but it had not been under observation a sufficient length of time to enable him to determine whether recovery was permanent.

He regarded the necessity to remove so much bone, in excision of the hip-joint, as a great drawback of the operation, and did not think that the amount of shortening was as little as generally assumed. The question, what is the amount of shortening of the extremity in adults, who at an early age have been subject to excision of the hip-joint? is not settled yet, and is worthy of careful investigation. Suppose we have a young patient with tubercular ostitis of the acetabulum, and we remove, as might become necessary, a large portion of that bone, besides the separation of the shaft of the femur above the trochanter minor. In such a case we may have three or more inches of bone in its length

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lost, and have, in addition to that, abolished what additional growth may have come from the preservation of the upper epiphysal cartilage. We ought to state how much that represents in the adult, in order to fix more accurately the question of indication for total exsection. The latter will, of course, always exist where the operation has to be done as a means of preserving life; and he thought that the standpoint of a good many surgeons and orthopedists, as a matter of principle not to do any exsection at all, was identical with sacrificing a certain number of lives which otherwise might have been saved. Especially the results of orthopedists are not absolutely conclusive, because the majority of the worst progressive cases do not apply to them, or eventually give up their treatment in order to search for some more speedy relief.

Regarding the very important question of functional result, he was not able to give a decisive answer. He had had some very good results after excision, and other cases in which, after excision, recovery was incomplete, or the functional result deficient. He had observed in several cases, where a great portion of the acetabulum had to be removed, in spite of consequent adduction during the after-treatment, that the shaft will not find a favorable point of support. One is able to make out, in such cases, a certain amount of slipping of the bones against each other, according to the more or less strong and tense fibrous connection; and he must further say that he was not yet convinced that under all circumstances a patient with movable joint, after excision, was better off than one with ankylosis in good position. The latter, with a slight amount of flexion, will always have a safe gait, and is not deprived of the advantage to be able to sit. Besides, his limb will probably not be as short as that of the former, who, to be sure, might occasionally offer an excellent result, at other times an incomplete one. He also thought one point worthy of attention, namely, whether the position of the limb, after excision as well as after conservative treatment, was a lasting one, and eventually how, later on, perhaps after a good many years, an unfavorable position might take place.

He had once, within the last seven years, seen general tuberculosis follow excision of the hip, apparently caused by the operation. The latter was done at an early stage of the disease. There were several sequestræ belonging to the head of the femur, and the patient died, in the third month after the operation, from tubercular meningitis.

DR. YALE said with regard to the amount of shortening which may occur, that (according to Ollier's experiments) if it was assumed that the growth from the upper epiphysis was absolutely abolished it was possible that, with the ordinary growth from that extremity of the femur, about nine centimetres might be lost. To that there may be added the atrophy from inactivity. He had measured many cured patients, some of whom had had abscesses, others none, with regard to the different sources and amounts of shortening, he had seen a tibia in a coxalgic person fall behind one inch or more, and it was fair to presume that the diminution in the growth of the femur is quite as much. If that be added to the other, it is possible that several inches may have been lost through simple inactivity.

The amount of functional use which a limb may have with anchylosis after an extensive disease of bone, was recently brought to his mind by a patient who fifteen years ago came under his care with abscess which had been totally neglected. There were many fistulæ, and in the spring of 1871 he contemplated excising the joint, and asked the opinion of Dr. Sayre, who said that excision would do but little good on account of the great amount of disease of the pelvic bone. He therefore treated the case as best he could without resorting to operative interference, and the patient recovered with anchylosis, is now a teacher in one of the public schools, although she still has six sinuses about the hip which discharge more or less, but the limb is in very good position, the actual shortening in the femur is one and a quarter inches, in the tibia about one inch, which is partially compensated for by tilting of the pelvis, and the remainder is nearly made up by hyperextension of the sound limb, and practically therefore she walks with a shortening of only about half an inch, and locomotion is with only a very slight limp.

He also recalled the case of a young man who, after he was cured, had thirteen cicatrices about the hip, and he was, when last seen, able to take an active part as member of a baseball club.

CORRESPONDENCE.

CHOREA.

To the Editor of THE MEDICAL NEWS.

SIR: The interesting editorial in one of your late issues on chorea raises a question, which seems to me is of so much interest and importance that I must crave a little space for its discussion. As I understand the editorial, the point is made that in chorea the tone of the ganglionic cells cannot be depressed, and that it is not possible for cells which are so diseased, as those I found in the spinal cord of the dog, to produce choreic movements as violent and as regular as those seen in the dog. The obvious reply to this is that whether it be possible or not the thing happened because the choreic movements were violent and the cells were diseased, and there was no other source from which the movements could have originated except the spinal cells. The amount of nervous energy necessary for choreic movements is much less than for voluntary motion. I believe always in the dog and usually, if not always, in the child, chorea is associated with a loss of power. The animal whose limbs are moving steadily and rapidly, may be scarcely able to drag them after him, and is more exhausted by a walk of a few rods than in health by as many miles. It must be remembered also that the change in the cells is a progressive one, and that there sometimes comes a condition of complete paralysis in which even the tremors may be lost. This represents the last stage of cell degradation, but long before this stage is reached the nutritive tone of the cell has undergone most marked diminution. I can see, myself, no reason for believing that at any time during the ordinary chorea of the dog is there an increase in the nutritive activity of the nervous protoplasm. My own experience being that always, so far as I could judge, there has been lessened power when any attempt at voluntary movement was made.

After all, however, this discussion is perhaps one

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largely of terms, for we hardly have definite conceptions of what constitutes lowered or increased tone of a ganglionic nerve-cell. The important fact is, that there is an altered condition of the nerve-cell which leads it to discharge, at very short intervals minute amounts of nerve energy, but unfits it for storing such energy and discharging it, as it were, *en masse*, and also for sustaining a prolonged production of large quantities of force—*i. e.*, of enduring a prolonged voluntary effort.

Yours, H. C. WOOD.

PHILADELPHIA, Nov. 21, 1885.

NEWS ITEMS.

MONTREAL.

(*From Our Special Correspondent.*)

EXTRACTION OF LARGE CALCULI.—In the Montreal correspondence of THE MEDICAL NEWS, for February 7, 1885, Dr. Hingston is mentioned as having exhibited at a meeting of the Medico-Chirurgical Society, a calculus weighing nearly *six ounces* removed successfully from a young man by the lateral operation. He remarked, that he brought this large stone before the Society because he had lately seen it stated that Sir Henry Thompson had declared that it was impossible to remove a stone larger than *three ounces* by the lateral operation. At a recent meeting of the Medical Society, Dr. Hingston read a letter from Sir Henry Thompson in which the latter stated, that he had been only partially quoted, and that the context modified considerably the text, and the full text and context of his statement are as follows: "No incisions can be made in the region which belongs to that operation (the lateral) through which a calculus of three ounces or more can be extracted. *Laceration, either avowedly by instruments, or but half concealed under the name of gradual distention, invariably takes place, and that affecting very important structures, often to a large extent.*"

In making this correction Dr. Hingston observed, that while he admitted that the extraction of large calculi is often attended with more or less laceration, he thought the limit of three ounces below the possible, and should not decide the question as between the lateral and suprapubic operation, for in the last cases published in Canada, the suprapubic operation for a calculus of three ounces was fatal, whilst the lateral operation for a calculus nearly twice that size was successful and without injury to the neck of the bladder or other important structures.

CINCINNATI.

(*From our Special Correspondent.*)

DR. J. H. TATE, for many years Obstetrician to the Cincinnati Hospital, has recently resigned. In recognition of his past services, he was elected Consulting Obstetrician. Dr. G. M. Allen, Assistant to the Chair of Obstetrics at the Miami Medical College, will be Dr. Tate's successor.

DR. A. T. KEYT, one of our most highly esteemed physicians, died at his residence at East Walnut Hills, on the 19th inst. Dr. Keyt was known to the profession chiefly in connection with his labors to perfect the sphygmograph. A pattern of the instrument invented by him has met with marked favor in Europe, as well as in our own country.

DR. THOMAS ADDIS EMMET has been elected an honorary fellow of the Academy of Medicine in Ireland.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, FROM NOVEMBER 17 TO NOVEMBER 23, 1885.

HEYER, ANTHONY, *Major and Surgeon.*—Member of the Army Medical Examining Board, now in session in New York City, is relieved from the additional duty of Attending Surgeon in that city, to take effect when Jos. R. Smith. Lieutenant-Colonel and Surgeon, shall have arrived in New York, and entered upon that duty.—*S. O. 267, A. G. O.*, November 19, 1885.

ELBREY, F. W., *Captain and Assistant Surgeon.*—Sick leave of absence extended six months, on surgeon's certificate of disability.—*S. O. 263, A. G. O.*, November 14, 1885.

REED, WALTER, *Captain and Assistant Surgeon.*—Granted leave of absence for one month, with permission to apply for one month's extension, to take effect about December 1, 1885.—*S. O. 115, Department of Platte*, November 18, 1885.

STRONG, NORTON, *Captain and Assistant Surgeon.*—Relieved from duty at Fort Union, New Mexico, and ordered for duty as Attending Surgeon Headquarters, District of New Mexico, and Post Surgeon, Fort Marcy, New Mexico.—*S. O. 171, Department of Missouri*, November 16, 1885.

CHAPIN, A. R., *First Lieutenant and Assistant Surgeon.*—Ordered for temporary duty at Fort Robinson, Nebraska.—*S. O. 113, Department of Platte*, November 18, 1885.

EWING, C. B., *First Lieutenant and Assistant Surgeon.*—Now at Fort Leavenworth, Kansas, ordered to proceed to Fort Reno, and report to Commanding Officer for temporary duty in the field.—*S. O. 170, Department of Missouri*, November 13, 1885.

SIMONS, JAMES, *Lieutenant-Colonel* (Retired), died November 11, 1885, at Baltimore, Md.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY FOR THE WEEK ENDING NOVEMBER 21, 1885.

DRENNAN, M. C., *Surgeon.*—Ordered to Training Ship, "New Hampshire."

AULICK, H., *Surgeon.*—Detached from Training Ship "New Hampshire," and wait orders.

FILTS, H. A., *Assistant Surgeon.*—Ordered to appear before Examining Board preliminary to promotion.

RUSH, C. W., *Passed Assistant Surgeon.*—Granted sick leave for three months from November 20, 1885.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE-HOSPITAL SERVICE, FOR THE WEEK ENDING NOVEMBER 21, 1885.

YEMANS, H. W., *Passed Assistant Surgeon.*—Promoted to be Passed Assistant Surgeon from November 1, 1885, to November 14, 1885. Reassigned to duty at San Francisco, California, November 16, 1885.

MCINTOSH, W. B., *Assistant Surgeon.*—Appointed an Assistant Surgeon, November 14, 1885. Assigned to duty at New Orleans, Louisiana, November 16, 1885.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLVII. SATURDAY, DECEMBER 5, 1885. No. 23

ORIGINAL LECTURES.

URETHRAL FEVER, AND DEATH FROM CATHETERISM.

A Clinical Lecture, delivered at the City Hospital before the Medical Class, November, 1885.

BY R. A. KINLOCH, M.D.,

PROFESSOR OF SURGERY IN THE MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA, CHARLESTON, S. C.

GENTLEMEN: I propose, this morning, to make some remarks upon the patient into whose urethra you saw me introduce a sound at our last meeting, and who afterwards died in consequence of this operation. The result was very unfortunate, but I regard it as one of the "calamities of surgery" that could scarcely have been foreseen or prevented. The poor sufferer died thirteen hours after the passage into his bladder of a medium sized (No. 24 F.) steel sound. I will first show you the specimens prepared for me after the autopsy, and will read you from an excellent authority on this subject the report of a few similar cases to show you that death under similar circumstances has been before encountered by excellent surgeons, and then I shall comment on the case in question. (Bladder and kidneys exhibited, and extracts read.)

This man had been in the hospital for some time under treatment for malarial fever. He was also known to have a stricture of the urethra. There had been unsuccessful attempts by physicians outside of the hospital to introduce a catheter into the bladder. Such failures are very common where there is sudden congestion of the parts forming the deeper portion of the urethra. An instrument may be readily passed one day, and in the same hands it may not pass another day. I deferred my examination of the urethra until the man had recovered from his malarial fever, for the retention of urine had been only occasional, and not urgent. Prior to my operation, which was intended to be only a preliminary stretching of the contractured canal, the pateint was given ten grains of quinine and a quarter of a grain of morphine. His urine had been carefully examined, and was found free from albumen. This is a very important matter, for the danger from all operations, and especially those upon the urethra, is greatly enhanced if there be any disease of the kidneys. Such disease, as a rule, should preclude any serious operation.

You saw what transpired at my clinic, and how I carefully examined the urethra, first with the bulbous bougie, and then with the steel sound. I then resorted to several filiform whalebone bougies, but did not try a sound smaller than the one that finally entered the bladder. The small elastic bougie established the existence of a false passage at the bulbous portion of the canal and the hemorrhagic disposition indicated a granular condition of the mucous membrane, and a soft stricture. I then felt assured that, with proper manipulation, the steel sound was the instrument most likely to pass. This I could guide, and thus would not enter any false passages that existed. Aided by my finger in the rectum, the beak of the sound was a little elevated, and then with very moderate force it was urged on, and easily entered the bladder. The instrument was now freely movable in the bladder, nor did the urethra tightly grasp its shaft. I was convinced that the stricture was only a congestive one, and that there was no old organic thickening that would require cutting or long and careful attention. I congratulated myself upon my good fortune, and the future prospects for the sufferer. The autopsy, as I will explain, confirmed my view of the character of the disease.

But how uncertain at times is surgery. Three hours after my patient had been put to bed, he was attacked with a severe chill accompanied with vomiting and great restlessness and anxiety. The house surgeon reports that very soon the temperature ran up to 106°. Subsequently there were a rapid and weak pulse, great depression, heart failure, delirium, and the poor fellow died at one o'clock A. M., thirteen hours after the operation. Examine this specimen and you can see no pathological condition to account for the fearful result. And yet the simple passage of the sound, and the slight divulsion which it effected, caused all the evil. Some of the cases I have referred to, show that death has followed even gentler operations of this same kind. Once before I encountered a similar result from an internal urethrotomy performed with Otis's dilating urethrotome, in the case of a young and vigorous man.

When a false passage is made you might expect traumatic fever to supervene, or urinary infiltration to result, and finally death may be traced to such lesion or condition. But there is no very sudden death from such accidents. Suppuration and irritative fever, or septic trouble, will precede death and indicate the initial lesion. In cases like the one we are considering, the rapidity with which the result was reached points clearly to a nervous implication. The death is almost like that due to shock after operations; but the high temperature points to something more. Can septic trouble supervene and kill so rapidly? This is difficult to conceive of. If nerve pathology was not yet so obscure, we might better interpret the phenomena met with and explain the result. As it is, I can only remind you of some facts which go to show how intimate is the sympathy between the urethra and the sympathetic system of nerves. A man in robust health often faints when a bougie is passed for the first time. Let me advise you, unless you know your subject, always to place him in the recumbent position when you introduce a bougie or a catheter, for the reason just given. The fainting under the passage of the instrument clearly indicates a reflex nerve influence. You can imagine that, if this should be carried to an extreme degree, death might result. Again, we not uncommonly see what is called urethral

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fever follow the passage of a catheter or an operation on the urethra. There is a chill, followed by fever, and this latter by a profuse sweat. Sometimes these symptoms are repeated again and again, like in a malarial intermittent. One condition is often mistaken for the other. I have never seen a fatal result in this variety of urethral fever, where the paroxysmal character was so defined, but I have at times felt alarmed for the safety of the patient.

When urethral fever follows catheterism, or when a decided chill is the consequence, I would caution you as to the repetition of the operation. You should be careful and use all the means we possess for controlling the irritability of the nervous system. Give morphine with atropine, or chloroform, or aconite, in advance of the operation. Use cocaine to modify the sensibility of the canal, and all the time examine carefully as to the condition of the kidneys. I cannot say that I have seen any marked advantage from quinine used in this connection although I habitually prescribe it. Now if our unfortunate case is to be classed as one of urethral fever, then we must call it the *fulminating* form, in contradistinction to those milder cases that I have referred to. The suddenness and rapidity of this case were indeed terrible. We can scarcely be more impressed or startled with the prompt collapse or death that comes of violent forms of cholera. It matters but little whether we conceive a poison operating through the blood, or whether we infer a more direct influence spent upon the great nervous centres.

I must tell you, before concluding, that the autopsy revealed the fact that both the liver and spleen had suffered from the influence of malarial disease. But I cannot assume that this accounts for the fearful end. We know of like results where no such complication existed.

The shock, heart failure, and death following operation most impress us, and illustrate cause and effect. I have regretted that I did not administer an anæsthetic before operating. This may, in such cases, afford some protection to the nervous system.

To go back to the autopsy and its revelations, as seen in the specimens before you. The bladder, you observe, looks healthy, and the urethra exhibits here behind the bulb some evidence of the divulsion; the mucous membrane is congested, thickened, and looks as if split or fissured. Here you see an old false passage at the beginning of the bulbous portion of the canal, and there is a little bloody extravasation in the submucous tissue, which extends up between the rectum and bladder. This last is nothing remarkable, and was to be expected as the result of our operative procedure. It could have had nothing to do with the death. There is another matter more worthy of note. After section of one of the ureters, we find a little muco-pus exuding upon pressure. Such secretion could not have been in any amount, or we should have detected albumen in the urine during life. There is some congestion of one kidney, while the other looks entirely healthy. Some bloody urine was found in the bladder, but it cannot be positively stated whether this was secreted before or after the operation. Blood may have passed back into the bladder from the urethra and mixed with the urine, or it may have come from the congested kidney. No urine was passed by patient after the operation, but certainly there was no uræmic poisoning.

Before leaving, let me give you one or two practical hints as to catheterism. In this operation there is often exhibited very bad surgery. But few men are adroit with the use of the instrument, and in the hands of many it as often perforates the urethra as it goes smoothly on into the bladder. If the beak is elevated too soon, it wounds the anterior part of the canal in front of the triangular ligament; or if it is urged along the floor of the canal and too much toward the rectum, the posterior wall is perforated at the bulb. You should let the instrument go easily on by its own weight, as it were, the beak close to the upper wall, and only when its progress is stopped should you gently depress the handle and cause the beak to follow the natural upward curve of the deep portion of the canal. I have had some curious experience in urethral surgery. Only yesterday I passed into the bladder, without difficulty, a No. 20 F. catheter in the case of a man brought here from Augusta, and whose bladder had been aspirated above the pubes to relieve retention. I once saw a perineal section that had been made by a reputedly good surgeon of this city, for an impassable stricture. Following the section, a large catheter had been passed into the urethra and up between the bladder and the rectum. There the instrument had remained for many days, with the belief that it was in the bladder. The urine had continued to pass alongside of the catheter, but not through it. There was abundant suppuration, and yet the man survived after I had removed the instrument, and afterwards inserted it into the bladder through the natural way. You may ask me whether there is no great danger from these false passages. There is always some danger, but fortunately the perforations are made from before backwards and upwards. This, to a certain extent, guards against urinary infiltration, and admits of drainage in the event of ensuing suppuration. But where a false passage results from ulceration behind a tight stricture, the urine necessarily enters little by little, and we have the starting-point of fistulous tracks which slowly extend, perforate the tissues in numerous directions, and open on the perineum or on the cutaneous surface of the scrotum. We shall see and speak more of these hereafter. When using the catheter, you find that it has wandered from the right direction, and has not entered the bladder, and you find much bleeding from the urethra, you can infer that you have perforated the walls of the canal. Now you should withdraw the instrument, keep the patient at rest for some days, watch his symptoms, and do not, unless there be urgent retention, attempt to pass another instrument for many days.

ORIGINAL ARTICLES.

VENEREAL BUBO.

AN INQUIRY INTO ITS RELATIVE FREQUENCY, AND BEST METHOD OF TREATMENT.

BY S. T. ARMSTRONG, PH.D., M.D.,
PASSED ASSISTANT SURGEON U. S. MARINE-HOSPITAL SERVICE.

WHILE the word "bubo" has been employed to describe an adenitis in any locality, it should, etymologically, be used only in reference to an inflam-

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mation of the lymphatic glands of the groin. The conditions causing bubo may be, traumatism; bubo coexistent with general adenitis in plague; tubercle; cancer of the lower extremities, penis, or pelvic viscera; erysipelas, pyæmia, or septicæmia, consequent upon an injury of the lower extremities; excessive venery; balanitis; gonorrhœa; soft chancre; or carried into a gland, the usual processes of inflammation ensuing in consequence thereof. Sometimes this is limited to the gland, occasionally the adjacent tissues are involved. Microscopical sections of such a gland show hyperplastic formation of the cellular substance and reticulum. Rokitansky considers that the former process is more extensive than the latter.

U. S. Marine-Hospital Service.

	1881.	1882.	1883.	1884.	TOTAL.
Gonorrhœa	1977	2024	2626	3017	7644
Gonorhœal bubo	37	43	60	72	212
Per cent.	2—	2+	2+	2+	$2\frac{7}{10}$
Primary syphilis, soft chancre	1946	2123	2135	1981	8185
Primary syphilis, suppurating bubo	287	328	424	496	1534
Per cent.	13	13	16+	20—	16—
Primary syphilis, hard chancre	513	503	504	389	1909
Primary syphilis, indurated bubo	102	128	96	149	475
Per cent.	16+	20+	16	27+	20—

Dispensary, City Hospital, and Female Hospital, St. Louis.

	YEAR ENDING March 31, 1882.			YEAR ENDING March 31, 1883.			YEAR ENDING March 31, 1884.			YEAR ENDING March 31, 1885.			TOTAL.		
	Disp.	C H	F H	Disp.	C H	F H	Disp.	C H	F H	Disp.	C H	F H	Disp.	C H	F H
Primary syphilis, soft chancre	64	58	59	34	53	57	100	125	79	5	60	88	203	296	283
Primary syphilis, suppurating bubo	33	46	8	11	41	12	32	49	19	6	57	23	82	193	61
Per cent.	34—	44+	10—	25	44—	17	24	28	19	55	49	20	29	39	18

Charity Hospital, New Orleans.

	1881.		1882.		1883.		1884.		TOTAL.	
	White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.	White.	Color'd
Primary syphilis, soft chancre	64	12	67	56	53	41	33	20	217	129
Primary syphilis, suppurating bubo	31	7	20	8	42	13	15	4	108	32
Per cent.	33	36	23	12	44	24	31	16	33	20

The nomenclature is that of the Royal College of Physicians, England.

chancre. In this paper, reference has been made only to bubo consequent to the latter three diseases, they bearing the most frequent causal relation.

The pathology of bubo is an absorption by the lymphatic vessels of an irritating substance which is The inflammation may subside, and the enlarged gland gradually becomes smaller by the absorption of the neoplastic tissue, or there is but little absorption, and chronic induration remains, or necrosis of the gland substance results in pus formation. Baum-

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ber states (Ziemssen's *Encyclop.*, vol. iii. p. 120) that the involution effected through fatty metamorphosis may, under certain circumstances, eventuate in caseous and calcareous degeneration.[1]

The time of the appearance of bubo after the commencement of a venereal disease, seems to depend as much upon the idiosyncrasy of the individual, as upon the date of absorption by the lymphatics. Dirt, negligence, and length of prepuce, are predisposing factors.

Bubo as a complication of gonorrhœa is rather rare; by referring to the appended statistical tables, it will be seen that $2\frac{7}{10}$ per cent. of the combined total of cases of gonorrhœa and gonorrhœal bubo, treated by the U. S. Marine-Hospital Service during the past four years, had bubo. In this connection I would state that the cases in this table are, if not entirely in males, so nearly so, that the question of sex would be of no import toward vitiating the result.

During a residence as Assistant Physician at the St. Louis Female Hospital, I failed to meet with a case of gonorrhœal bubo in woman, and consider—from accessible reports—that this complication is rare. Several times I found abscess of the vulvo-vaginal gland, and its situation would suggest its easy inflammation.

In the question of race, notwithstanding the alleged tendency of the negro to suppuration, the long prepuce retaining the purulent secretion, and his carelessness about an attack of what he calls "runnin' range," I have only—in a recent series of cases—recorded one case of gonorrhœal bubo in forty-four cases of bubo; while in twenty cases of bubo in whites, three were gonorrhœal. The statistics of New Orleans Charity Hospital for the past five years, record seven cases of gonorrhœal bubo in whites, and four in negroes.

This form of bubo is of long duration, the following cases being typical of each stage of the inflammation.

CASE I.—M. R., æt. 34 years, laborer, white, had gonorrhœa early in August, 1879, and later a bubo in the right groin. As the latter, after an acute inflammatory stage, reduced in size, he neglected treatment until the first part of October, when he was admitted to the St. Louis City Hospital for it and gleet. The latter was relieved, but the bubo remained when he left the hospital the last of the month.

CASE II.—J. F., æt. 21, white male, engineer, had gonorrhœa in January and also in June of 1883. July 6, the inguinal glands in each groin enlarged; despite this, he continued both his occupation and fornication. August 9 he was admitted to the hospital (U. S. M.-H.), and both groins lanced. He insisted upon returning to work August 13. September 12 he reported again, stating that he had opened four abscesses in right groin, and three in the left, since leaving the hospital. There were several fistulous tracts in each groin.

The method of treatment for this form of the disease is not different from that applicable to other buboes.

In passing to the consideration of suppurating bubo complicating soft chancre, a reference to the accompanying tables will show that the usually accepted statistics of this subject give too high a percentage. In the U. S. Marine-Hospital Service, all seamen presenting applications for relief receive treatment either in the hospital or dispensary. My experience in the municipal institutions of St. Louis permits the statement that only the severer cases, or absolute paupers, were admitted to treatment for venereal disease. The same rule, I think, existed in Charity Hospital, New Orleans. Consequently, the percentage in the first instance is only 16 per cent.; in the second (combining Dispensary and Hospital Relief, thus resembling the Marine-Hospital statistics), 34 per cent.; and in the last institution, $26\frac{5}{10}$ per cent.

Relative to sex, the statistics of the St. Louis Female Hospital show 18 per cent. of buboes. As regards race, in Charity Hospital, New Orleans, the percentage of buboes in whites is 33 per cent.; in negroes, 20 per cent. In a recent series of cases of my own, the percentage of bubo in whites was $22\frac{8}{10}$; in negroes, $24\frac{5}{10}$.

The bubo accompanying soft chancre may become phagedenic, and by its destruction of important parts prove fatal. A. Vater and G. P. Juchs[1] report a case of perforation of the intestine, and death. Dietzmann,[3] Labbé,[3] and F. D. Lente,[4] each report a case of peritonitis following bubo. Aron,[5] and New Orleans Charity Hospital,[6] each give a case of perforation of the femoral vein, and fatal hemorrhage. Callender,[7] C. T. Poore,[8] and R. V. de Lisle,[9] each report a case of bubo perforating the femoral artery. P. Cullen[10] reports a case of fatal tetanus from bubo. Aside from such complications there may be destruction of a large extent of skin and superficial tissue. I presume most persons are familiar with Ricord's case, referred to by Bumstead and Taylor, where the phagedena involved the loin, buttock, entire circumference of thigh to below the knee, despite all preventive measures, and fourteen years later the ulcer had not completely healed. This indolency frequently follows phagedena.

CASE III.—E. L., æt 26 years, white female, was transferred to my charge, in the St. Louis Female Hospital, in 1880. She had been in the institution for some months for an indolent ulcer of the left groin, and abdominal parietes, extending from pubes to crest of ilium, and to within a short distance of the umbilicus. This was the result of a phagedenic bubo incurred early in 1879. The efforts of my

[1] In the *American Journal of the Medical Sciences* for October, 1885, Dr. A. Victoria Scott, of Philadelphia, reports a case of calculi removed from cysts of the vulvo-vaginal glands in a mulatto, aged 49 years. When 43 years old the patient had abscess of these glands, with itching and burning in vulva, and an irritating leucorrhœal discharge. While this adenitis was not inguinal, the relative frequency of inflammation of this gland in gonorrhœa in women, is referred to elsewhere. While not stating that in this case the vaginitis was specific—so-called—the identity of the latter and ordinary vaginitis is suggested for consideration.

[1] Haller, Disp. Chir., v. 37.
[2] Wien. med. Press, 1867.
[3] Gaz. d'Hôpit., 1869.
[4] N. Y. Journal Med., 1850.
[5] Gaz. d'Hôpit., 1873.
[6] Report, 1880.
[7] Trans. Path. Soc., London, 1869.
[8] N. Y. Medical Journal, 1879.
[9] Army Med. Dept. Reports, London, 1868.
[10] Indian Med. Gazette, 1866.

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predecessors and myself failed to improve the condition.

CASE IV.—C. J., æt. 26 years, male negro, roustabout, admitted to U. S. Marine Hospital, Memphis, September 29, 1884, for indolent ulcer of each groin. In the summer of 1882, he had a venereal sore, and double bubo. The latter were lanced by a physician in St. Louis. He was drinking a great deal of whiskey at that time, and thinks this caused the phagedenic condition and prevented healing. While caustic applications destroyed the unhealthy granulations, cicatrization did not follow, nor would skin grafts adhere. Patient died of pneumonia January 14, 1885.

The indurated bubo is usually accepted as the complication of hard chancre. The following case is typical:

CASE V.—M. L., æt. 20 years, white male, seaman, had several small pimples on corona some eight days after coition. August 31, 1882, two weeks after appearance of pimples, he applied to me for relief, having a mucous patch on penis, no induration about it; indurated bubo in each groin. September 6, a macular syphilitic eruption appeared. Constitutional treatment cured the buboes.

Where the hard chancre is phagedenic, the induration of the glands is not necessarily followed by suppuration:

CASE VI.—J. L., æt. 32 years, male negro, had a single sore on glans penis in 1870, which destroyed one-half the glans. The inguinal glands were indurated, but did not suppurate. He was treated in the U. S. Marine Hospital, St. Louis, for this and an annular syphilide. July 27, 1881, he came under my treatment for tertiary symptoms, and this history was verified by an examination of the body.

Whether seamen are more liable to mixed sores, and also indurated buboes eventually suppurating, I am hardly prepared to say. But Cases VII. and VIII. are far from rare forms in that class of patients:

CASE VII.—O. W., æt. 25 years, white male, mate, treated August 23, 1883, for an irregular sore on glans penis, and indurated bubo of left groin. The latter rapidly suppurated, and on September 3, it was lanced. While no secondary eruptions appeared, and the patient took no mercury, yet he had osteocopus and sore throat during the winter, and other evidences of constitutional infection. He was given mercury, which he took irregularly. In April, 1884, he had a very severe attack of specific iritis.

CASE VIII.—A. Y., æt. 32 years, male negro, cabin-boy, applied for relief for an irregularly shaped sore and indurated bubo on June 19, 1885. On August 22, he was admitted to the hospital, and the bubo lanced. About the middle of September an annular eruption on body, with sore throat and alopecia, was treated.

This peculiar *sequela* of indurated buboes was first reported by P. A. Surgeon H. R. Carter, U. S. M.-H. S.,[1] who gives statistics of 231 cases of syphilis each in whites and negroes. There were five cases of suppuration of the inguinal glands in the whites, and thirty-nine in the negroes. Dr. Carter says: "This is so common, that the suppurating bubo is almost without significance in the diagnosis between the 'infecting and non-infecting' sore." My experience confirms this.

The first consideration in treatment is the possibility of aborting the acute inflammation. To this end, rest is a most important adjunct. Heat, in the form of poultices, is soothing, but tends to promote suppuration. The use of caustics as counter-irritants is too severe a procedure. Compresses are painful, tedious, and inferior to other measures. The frequent application of tincture of iodine, or of this with belladonna, destroys the epidermis, which usually remains as dead cuticle over the new formation; consequently, subsequent applications have but little opportunity to exercise any topical influence.

Dr. Otis, and also Dr. L. D. Bulkley, of New York, have advocated sulphide of calcium. In doses of 1/8 to 1/4 of a grain every two hours, I have aborted gonorrhœal or chancroidal buboes, and find the drug very useful.

In specific buboes, inunction of the oleate of mercury and constitutional treatment have been, with me, most satisfactory.

In all forms of bubo, excellent results may be obtained, in the early stage, by the intraglandular injection of carbolic acid (10 to 40 per cent. solution), or tincture of iodine (pure), or bichloride of mercury (5 to 20 per cent. solution). The latter may be combined with iodide of potash (making then a biniodide solution), and is useful in syphilitic bubo. In all cases, I first wash the skin with a carbolized solution, and if very tender, cause local anæsthesia with an ether spray. The hypodermatic needles are carefully cleaned, and the injection made into the median portion of the gland. These injections may be repeated daily, though I have obtained as satisfactory results by using injections every other day. Great care must be exercised to prevent the escape of the injecting fluid into the subcutaneous tissue. In some cases the injections cause such great pain that their use must be abandoned.

A method of interstitial medication has been suggested by Dr. M. A. Brondel,[1] of Algiers, of applying compresses wet with a solution of iodide of potash, or bichloride of mercury, over the enlarged gland, and placing on this the negative electrode of a galvanic battery, the positive electrode being placed over the other groin. The solution is decomposed by electrolysis, and the iodine traverses the tissues to the positive, or the mercury to the negative, electrode. This discovery is too recent for any observations on my part, and Dr. Brondel has not reported its use for this purpose.

Where suppuration has occurred, all these measures are futile. A case was reported in the service of Dr. McBurney[2] of an indurated chancroidal bubo not improved by intraglandular injections, in which the bubo was extirpated. I have tried this plan in indolent bubo in a white man and

[1] Manifestations of Syphilis among Negroes. Report of U. S. Marine-Hospital Service, 1883.

[1] N. Y. Med. Journal, Oct. 31, 1885.

[2] Philadelphia Medical and Surgical Reports, March 8, 1884.

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a negro, with a view to diminishing the duration of treatment. If we were assured of phagedena in every case, this might be an excellent procedure, before the gland ruptures. But for ordinary buboes, in consideration of the close proximity of important vessels, of the possibility of pus entering the peritoneum through the inguinal canal, and of the possibility of burrowing in the abdominal fascia, I think the operation is one rarely to be employed.

For the evacuation of pus, Le Pileur proposed aspiration, and washing the cavity out with various solutions. My employment of this method in the City and Female Hospitals of St. Louis, showed that it was painful, protracted in application, and not always successful in accomplishing the desired end.

The use of horsehair or a seton for drainage through a small puncture, advocated by Bodnar, Déchanet, and Bascoul, has never met with favor.

Multiple puncture of the skin over the bubo does not offer the advantages of a free incision.

The most satisfactory method is to wash the surrounding skin with a carbolic acid or bichloride of mercury solution, shave the hair from the adjacent region, produce local anæsthesia by cocaine or the ether spray, and make a free incision in the gland; afterward dress with the same solutions, and favor suppuration and granulation by poultices.

The average duration of confinement in bed in cases treated as above, is twenty days, and I have obtained no better results with other methods.

Where exposed glands remain in the incision, they should be removed with scissors. I have never had the misfortune of phagedena resulting in a case under my treatment from the beginning; this immunity is attributable to thorough cleanliness, and antiseptic precautions.

Where the process of granulation is slow, curetting, the use of chromic acid solution, or arsenical paste, are the most advantageous measures.

MEMPHIS, TENN., November, 1885.

A CASE OF COMPOUND EPIPHYSIAL DIASTASIS.

BY R. W. KNOX, M.D.,
OF HOUSTON, TEXAS.

THE following case is recorded on account of its rarity, and to show that such an injury may be followed by a complete restoration of the parts:

Dean C., aged 16, while racing, received an injury from his horse falling upon him, causing considerable shock, and producing the following lesions, as discovered when brought in for examination.

Severe pain was complained of in the arm and shoulder, and upon removal of the coat the shaft of the humerus was found protruding through the skin for the distance of one inch over the outer and rather inferior aspect of the deltoid muscle. The extremity of the bone presented a transverse surface without spicula; comparatively smooth to the touch, as if released from cartilaginous union, and suggesting the diagnosis of epiphysial separation. The head of the humerus could not be reached with the finger, although the wound was sufficiently large to admit it (the shaft still protruding), but by external manipulation was found to be *in situ*.

Reduction was easy under chloroform. To overcome muscular action and keep the parts at rest, this apparatus was used: A splint of sheet zinc was prepared, extending from the axilla to the finger-tips. This was notched at the bend of the elbow, made rectangular, and accurately fitted with padding to the inner side of the arm. A felt cap, notched to allow drainage from the wound, was applied to the shoulder, and both arm and forearm secured to the chest with a roller bandage.

The patient was of delicate build, with a malarial cachexia, and had recovered only a few months previous to the accident from a severe attack of pneumonia. No fever appeared until the fifth day, when the temperature arose to 105° F. in the evening, and continued with evening exacerbations until the tenth day, when the fever passed off, and the patient went slowly on to recovery. At the end of three months all splints were removed, and when last seen, six months from the date of his injury, the patient had every motion in his arm, and could use it as well as ever. Success is attributed to the complete rest enforced in the early stages of the treatment, together with the close-fitting and immovable character of the dressings; antisepsis and drainage were used for the wound.

The result in this case opposes the idea held by many, that diastasis at this point is usually followed by vicious union or atrophy of the parts, on account of the injury done to the fibro-cartilage that separates the epiphysis from the shaft. One author says that "injured epiphyses are prone to inflammation, going on frequently to suppuration, periostitis, and even osteomyelitis."[1] Is it not possible that they have mistaken a joint injury for an epiphysitis? It would seem that cartilage, which has so little blood, would not be liable to be the starting point of much inflammation. Certainly if an injury to an epiphysis is fraught with such bad results when of a simple nature, how much more surely would this hold true when the injury is such as is described in the case above. However, in this case, with a compound separation there is now no appreciable difference in the size of the two arms, and only a scar remains to tell the tale that there was ever an injury.

A NOTE ON ATROPIA IN ACUTE CORYZA.

BY R. GRAY, M.D.,
OF JACKSONVILLE, FLORIDA.

IN all recent works on nasal diseases no mention is made of atropia as a remedy in acute coryza. The use of the drug in this disease is by no means a new one, and I make no claim to advancing a new idea. My object is simply to urge upon the profession a large use of the remedy, and note the results.

The first case in which I used atropia in acute coryza, was that of a man in middle life, who had "caught" a severe "cold in his head" several days previously. When he came for advice the disease had reached an extreme stage. There were severe frontal headache, a hot, burning sensation in the

[1] See Surgery of the Epiphyses, by Mr. Wheelhouse, Brit. Med. Journ., March 7, 1885.

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nose, forehead, and cheeks, there was some conjunctivitis, and very profuse mucopurulent discharge, which was extremely irritating. The skin about the nose was irritated and inflamed, and the general condition was one of great misery. Atropia was given with the idea of decreasing the amount of the discharge. The dose was $\frac{1}{120}$th of a grain, repeated after four hours. It had a most marked effect, and the next day the patient was quite free from headache, heat, and swelling, and from discharge.

Since then the remedy has been tried in a large number of cases, in all stages of the disease, and at all ages, with uniform success. It is now my established practice, and is preferable to cocaine in this, that no local application is needed to the nose, thus saving a very painful manipulation.

The only objection that has been made to the treatment, is where the eyesight is troubled. But the dose needed to cure the coryza is not sufficient to produce much disturbance of vision. It is only necessary to influence the secretion, and an extreme degree of dryness of the throat and nasal passages is of no advantage.

A CASE OF INTUSSUSCEPTION.

BY JOHN FERGUSON, M.A., M.D., L.R.C.P. ED.,
ASSISTANT DEMONSTRATOR OF ANATOMY, TORONTO SCHOOL OF MEDICINE, TORONTO, CANADA.

THE following case presents some interesting points, both in its history and treatment.

The patient was a strong, well-built and well-nourished Scotchman of thirty-seven years. When called to see him about 9 P. M., I was informed that he had been suffering considerably from pain in the abdomen. It was for this he sought my service. On making inquiry, I found that he had been troubled with constipation for some two weeks, which he thought was caused by eating dry dinners. Three days before my visit he had taken two doses of castor oil, amounting in all to two ounces. The bowels were freely moved by these doses. On the second day all action of the bowels ceased, and a general but undefined pain came on, reaching a point of considerable severity on the evening when my first visit took place.

As I did not expect any very serious results, I gave him a hypodermatic injection of one-third of a grain of morphia; and left two morphia pills, each containing one-quarter of a grain, to be used during the night if required. On returning in the morning, it was found that the pain had caused more disturbance than was to be expected, considering the amount of morphia administered.

At this visit I learned that on two previous occasions, separated by about a year each time, he had had some pain in the abdomen, lasting, in the latter of these attacks, some three weeks, following an attack of diarrhœa, and gradually disappearing. Careful examination of the abdomen revealed a small tumor a little below, and to the right of the umbilicus. This was distinctly tender to the touch. The tumor was elongated, placed obliquely in the abdominal cavity, and not very firm. The pulse was 81 per minute, and rather hard; the temperature was 101.3°. There had been no action of the bowels during the night.

On the occasion of this visit, I administered a warm water and soap enema, sufficient in amount to fill completely the entire colon, having passed an elastic nozzle some eight inches into the bowel. When this fluid was rejected by the bowel, there was scarcely a trace of fecal matter in it. Another hypodermatic of morphia, one-third of a grain, was given, and doses of one grain of opium ordered to be taken as often as the pain justified their use. Warm applications were directed to be applied to the region of the tumor.

In the evening the temperature remained the same. The pulse was 95; the pain modified, and there was some nausea, though there had been no vomiting. There had been no action of the bowels subsequent to the enema. The opium treatment was continued along with the warm applications.

On the day following, the patient appeared more anxious; the pulse was above 90; the temperature was 102°; the nausea continued, but without vomiting. The bowels had not moved. The tenderness over the tumor was increased, though the latter was not so easily recognized. The patient remained in this condition throughout the day.

The following morning there was moderate meteorism; the tenderness and tumor still about the same. No vomiting had taken place, though the nausea was increased. There was also a slight muco-sanguineous discharge. This discharge continued more or less during the remainder of illness up to date on which the intussuscepted portion of the bowel was passed.

From this date on, for four days, the meteorism increased; never becoming very great, however. On only one day of the illness, the sixth from the commencement of my attendance was there vomiting. It was of a bilious character, but not in the least stercoraceous. This is noteworthy, as it afterwards proved to be a case of entire intussusception.

The opium treatment was continued in full doses throughout the case. The nourishment consisted in rich meat extracts, eggs, and milk peptonized.

On the seventeenth day of my attendance the patient evacuated four and a half inches of the small intestine. From a careful examination of this it was concluded that it must have come from about the lower end of the jejunum, or the upper end of the ileum.

The same nourishment and the opium, though in smaller doses, were continued. On the seventh day after the discharge of the portion of the intestine there was a small fecal motion. The recovery was steady and unbroken. The patient slowly resumed solid food, the opium was gradually lessened, and finally omitted. The patient was sufficiently recovered to return to his work in the seventh week from the date when I was sent for.

I would call attention to the absence of any very severe symptom, while the discharge of the portion of bowel settled beyond doubt the real nature of the case. As to treatment, all that need be mentioned is the use of a rich but easily absorbed nutriment,

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one which left but little residue to be disposed of, and the steady and free use of opium up to the date of the separation of the intussuscepted portion of the intestine, and for some time after.

HOSPITAL NOTES.

DISPENSARY FOR NERVOUS DISEASES, BALTIMORE.

Service of JOHN VAN BIBBER, M.D.

CLINICAL NOTES.

Torticollis.

A. B., nine years of age, presented herself for treatment, July 20, 1885, suffering with wry-neck. She gave the following history: About one month ago, she was suffering with toothache on right side, and on same day she received a blow on same side of neck. She was not able to sleep that night on account of pain, and next morning she found her head drawn to left side, and any attempt to straighten it caused considerable pain. She was treated with various applications, but as the head continued to be drawn more to the side and the neck to become more painful, she applied at a dispensary in her neighborhood for treatment. She was put under a course of medicine, and the right side of the neck was blistered several times, but at the end of a month her condition was in no way improved.

She then applied to this dispensary. The head was carried very much to the left side, with the chin almost on a line with the left shoulder, and the left sterno-cleido-mastoid much contracted. The right side of the neck was considerably swollen and sore from the blisters, from the spine as far forward as the sterno-cleido-mastoid muscle. Gentle traction caused considerable pain. She was slightly anæmic, otherwise her condition was good. Examination with faradic current showed the left sterno-cleido of normal contractility and very rigid, while that on the right side was stretched, somewhat atrophied, and did not respond readily to a strong current. As the application of a current was extremely painful on account of a sore on the neck, soothing applications were used for a few days, and she was put upon tonic and ferruginous treatment.

At the end of a week the use of the faradic current was begun daily. At the same time, and after applications of the current, she was made to suspend herself for several minutes every day in the Sayre's swing. Under this treatment she improved rapidly. The right muscle grew stronger after each application of electricity, and gradually the head could be brought into its normal position.

She came for daily treatment until August 19, 1885, when she considered herself cured, and did not return for some weeks, although there still was slight weakness of movement. She came again to Dispensary on September 11, 1885, at which time she was carefully examined, and it was found that both sterno-cleido-mastoid muscles acted normally, and that all movements of head and neck could be normally performed.

Remarks.—The deformity in this case differed from that of an ordinary wry-neck. The head was drawn to the left side, and the chin turned to the same side instead of toward the right shoulder. The first inflammation in the muscles of the right side of the neck caused her to assume this position, which, having continued for a long time, induced atrophy and a partial paralysis of the overstretched sterno-cleido-mastoid muscle of the right side. This, however, still retained sufficient power to keep the head in position to cause the least disturbance from jar or movement.

This patient has now entirely recovered, and her treatment has been an instructive example of what can be done to prevent deformity. Without proper instruments this good result could not have been accomplished, and the continuation of the deformity over a long period would have induced a permanent contraction of the muscles, which could have been remedied only by a tenotomy.

Basilar Effusion.

R. B., two years and four months of age, was presented for treatment August 21, 1885. His mother gave the following history: Up to May 25, 1885, the boy was well and hearty; he could walk and take care of himself as well as any other child of his age; he was altogether an exceedingly bright child, could talk intelligently and make himself generally understood. Would always call his mother's attention whenever he wanted to micturate, etc.

The boy enjoyed good health up to May 26, 1885. A few days before this date his mother remarked that he passed worms in the stool—the ordinary ascarides vermicularis. She gave him wormseed without consulting a physician, and not knowing exactly the dose she gave him. On the morning of the first day he was taken sick shortly after going into the yard to play, and was there for an hour. On looking for him, his mother found him eating the leaves of a flower plant, commonly called blue flag (iris versicolor). How much he had eaten could not be ascertained. He ate his usual dinner, and shortly after was put to bed to take his afternoon nap; he remained asleep until about four o'clock, when he called for water, which was given him, but was at once vomited. His face was flushed and swollen, and his skin very hot. On examining the vomited matter, some pieces of the flower leaves swallowed in the forenoon were found.

Shortly after he was seized with convulsions, which were violent and protracted. A physician was sent for, and after the action of a purgative the stool was found to contain considerable quantities of blue flag leaves. The convulsions were violent, and could only be controlled by chloroform inhalations. These seizures continued for more than a week, when they were finally controlled. The child was then exceedingly weak, had lost the power of speech, was unable to walk, and did not pay attention to anything. This was his condition when presented at the dispensary August 21, 1885. The patient's general expression was idiotic; he walked with an oscillating gait and would often fall, and, while he was not paralyzed, a very decided weakness was manifested. He was much emaciated, probably due to the fact that he vomited nearly everything given him to eat.

On examination it was found that the boy was very

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deaf, and was unable to grasp anything tightly. He attempted to chew and swallow everything that came within reach. Feces passed involuntarily; slept little at night. Was very restless during the day; constantly walking and constantly crying.

Basilar effusion was diagnosed, with unfavorable prospect for recovery. Patient was put on strong alterative treatment: various mercurial preparations by inunction, his stomach symptoms were controlled with small doses of calomel, alternated with pepsin, and stimulating applications to epigastrium. His insomnia and restlessness were diminished by conium, etc.

His general condition improved, he slept well, has ceased to cry in the idiotic manner, and is quieter; from being emaciated and weak, he has grown strong, and appears well nourished; his stomach is in a much better condition, though he still vomits occasionally. Both upper and lower extremities are stronger, though the oscillating gait is still perceptible; and above all, his mother declares that he appears to show many signs of intelligence in noticing objects around him, and in calling his father's name, which he has not done since his first illness.

Remarks.—The serious brain lesion in this case was no doubt due to the force and duration of the convulsions, which were of toxic origin. This result is a strong argument in favor of the active treatment of convulsions in children, from whatever cause produced. The post-febrile brain lesions in children have ruined irrevocably many who otherwise might have developed into strong and healthy adults. The mercurial inunctions, potass. iodide, hydrarg. tinc. iodide, the stimulating lotions to spine and abdomen, and local treatment of the gastric disturbance, have brought about a better result than was anticipated. I am led to think that the vomiting was of central origin, for with the improvement of the cerebral symptoms this difficulty has been overcome.

The curious fact of the child's showing such a morbid and irresistible desire to bite and put everything in its mouth, shows that the vomiting produced by the poison left a decided impression of the pneumogastric centres, and this result was increased and prolonged by the subsequent effusion and meningitis.

From the progress already shown by this patient, I think we can safely look forward to a more rapid and decided improvement.

MEDICAL PROGRESS.

REFLEX MOVEMENTS IN THE BLOODVESSELS OF MAN.—G. FANO (*La Salute*, 1885) has determined by experiment:

1. That the bloodvessels react to electrical stimulus.

2. The time of reaction is always long, varying between two and seven seconds, according to the condition in which the patient is found, and according to the locality to which the stimulus is applied.

3. The vascular constriction consequent upon electrical stimulation is more apparent in sleep than when the patient is awake, and occurs first in the upper extremities, afterward in the lower.

4. The constriction of the vessels of the lower extremity is, perhaps, more slowly manifested than is that of the upper extremities, but persists through a longer period, the vessels of the upper extremities regaining their normal volume very rapidly.

5. During fasting, the vessels respond but slightly to stimulants, but react with great energy after a full meal.

6. Other stimulants than electricity produce the same effect, and the constringing of the vessels is always proportionate to the intensity of the stimulation, and the greater the psychical activity the more intense and more rapid is the reaction of the vessels.—*Annali Universali di Medicina e Chirurgia, parite revista*, September, 1885.

TUBERCULOUS MENINGITIS SUBSEQUENT TO SURGICAL OPERATION FOR REMOVAL OF FUNGOUS SYNOVITIS.—At a meeting of the Société de Chirurgie, held October 21, 1885, M. RICHELOT reported the history of a case of tubercular meningitis, supervening upon an operation for fungous synovitis of the wrist. The operation was performed August 3d, and consisted simply of scraping the fungosities developed in the sheath of the flexor muscles of the wrist. The wound was dressed antiseptically, and united by first intention. The patient was a vigorous, well-developed man, whose general condition gave no indication of tubercular diathesis—but the day succeeding the operation the temperature rose to 102.2° F., and subsequently varied between this and 104° and 105.8°. August 15th, violent pain was experienced in the testicles and a double orchitis was developed, and at the same time symptoms of meningitis came on, to which the patient rapidly succumbed. The autopsy showed, in addition to the meningitis, the presence of gray granulations in the lungs, together with the reappearance of the fungous growths in the wrist.

M. Richelot considers the case beyond doubt as one in which surgical operation produced a general from a local tuberculosis.—*L' Union Médicale*, Oct. 27, 1885.

PATHOLOGY OF HEMICRANIA.—PROFESSOR VIZIOLI (*Giornale di Neuropatologia*, Fas. 1 and 2, 1885), in opposition to the views held by some writers concerning the pathology of hemicrania, holds that the seat of origin of the disease must be the cervical sympathetic nerve.

Further, no inguinal neuralgia is accompanied by symptoms of derangement of the function of the sympathetic by the agency of the ganglionic chain, as shown by nausea, vomiting, etc., conditions always peculiar to hemicrania. Still further, the relationship of hemicrania and epilepsy, maintained by Möbeus, is denied by Professor Vizioli.—*Rivista Internazionale di Medicina e Chirurgia*, September, 1885.

SUPRAPUBIC LITHOTOMY FOR THE REMOVAL OF A VESICO-URETHRAL CALCULUS; DEATH FROM PYELONEPHRITIS EXISTING PREVIOUS TO THE OPERATION—DR. LOUMESA (*Journal de Médecine de Bordeaux*, September 20, 1885) reports the case of a young man, aged twenty-six years, in whom incontinence of urine was present for a long time, and in whom latterly the urine became purulent.

At examination made at the hospital the sound was found to be arrested in the membranous portion of the

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urethra by a rough immobile body, which was continuous with a much larger calculus in the bladder—the dimensions and exact situation of which could be accurately determined by rectal examination.

The stone was evidently as large as a hen's egg, and, besides occupying the bladder, was prolonged into the deep portions of the urethra.

Suprapubic lithotomy was performed in the usual manner, according to Petersen's method. After the operation Périer's tubes were introduced, and the bladder washed out every four hours.

Death of the patient on the day succeeding the operation.

Post-mortem examination showed the presence of marked cystitis. The urethra exhibited no lesions save extreme redness and some slight ulceration in its membranous portion. The ureters were much dilated and tortuous, especially the left, which had a calibre equal to the small intestine, and was distended by a thick inflammatory pus, mingled with fine débris of uric acid concretions. The left kidney was considerably hypertrophied, and its entire parenchyma studded with purulent cavities the size of a cherry, and occupying especially the medullary substance. The pelvis and calices were also distended with pus. On the right side the lesions were less advanced.

The calculus was of the size and shape of a large egg, one of its extremities, tapering, sent a conical prolongasion into the deep urethra. The composition of the calculus was found to be uric acid in the centre, and phosphate of lime on the periphery.—*Annales des Maladies des Organes Génito-Urinaires*, November 1, 1885.

DANGERS OF COCAINE IN OPHTHALMIC PRACTICE.—At a late meeting of the Ophthalmological Society of the United Kingdom (*British Med. Journal*, November 21, 1885), MR. NETTLESHIP inquired whether there was any general suspicion that the gelatine disks of cocaine were not satisfactory? His suspicions had been raised by the occurrence of a serious run of cases of panophthalmitis at St. Thomas's Hospital, while, at the same time, the cases at Moorfields did well. At St. Thomas's Hospital he had been using gelatine disks of cocaine before iridectomy and cataract. Messrs. Savory and Moore had informed him that, since cocaine was hygroscopic, the gelatine disks were always moist, and that it was impossible to keep them thoroughly dry; he suggested that the disks might afford a breeding ground for pathogenic organisms. Solutions of cocaine also apparently had a tendency to cause panophthalmitis. Gräfe had found chronic interstitial keratitis much more common since he had used cocaine.

MR. M. MCHARDY had also, at one time, had a run of panophthalmitis after using solutions of cocaine. Fifteen days appeared to be the longest time which it was safe to keep a solution of cocaine; since using quite fresh solutions (eight per cent.) he had had no bad cases.

MR. EDGAR BROWNE had also recently had an unfortunate series of cases, and was inclined to suspect that cocaine was responsible for that misfortune.

MR. STORY said that solutions of cocaine might be made up with boracic acid. He observed that he found it difficult to understand why solutions of cocaine should be so dangerous, while atropine solutions had been used for many years without mischance. He observed that epidemics of panophthalmitis had always occurred from time to time before the introduction of cocaine.

MR. MARCUS GUNN suggested that these epidemics might have been due to the atropine solutions, which had also afforded a breeding-ground for germs.

MR. LANG mentioned a case of panophthalmitis which he had recently encountered, where the only cause that could be suggested was that the solution of cocaine was not fresh.

MR. NETTLESHIP said that, at Moorfields, the solutions of cocaine were made up with saturated solution of boracic acid. He had never before had so severe a run of cases in his own practice.

LACTIC ACID AND TUBERCULAR LARYNGITIS.—A discussion has taken place in the Berlin Medical Society on the value of lactic acid in laryngeal tuberculosis. DR. KRAUSE stated that, of fourteen undoubted cases he had treated in this way, some were improved, and some completely cured. The least satisfactory cases were those where the posterior wall of the larynx was affected; also those where there was a lesion below the vocal cords which could not be well brought under the influence of the application. The voice improved, also the power of swallowing, and the general condition of the patients. DR. ROSENBERG confirmed the statements of Dr. Krause as to the good effects of lactic acid, but, for his own part, was still more satisfied with the results of a twenty per cent. solution of menthol. He was also treating pulmonary phthisis with menthol inhalations. DR. LUBLINSKI had had a certain amount of success with lactic acid, but found that, after the ulcers had healed, they again broke out. PROFESSOR VIRCHOW pointed out that when these ulcerations healed, a cicatrix only was formed, not true mucous membrane. He hoped that further observations on this subject might be made, especially on cases that had healed for some time.—*British Med. Journal*, November 21, 1885.

COCAINE IN SEASICKNESS.—DR. WICHERKIEWICZ has been making trial of Professor Manassein's remedy for seasickness—cocaine—and confirms the St. Petersburg professor's high opinion of its value. Dr. Wicherkiewicz employed it chiefly in children, giving from 0.03 to 0.05 gramme (from half to three-quarters of a grain) in a one per cent. solution. He finds that cocaine acts not only by diminishing the impression made on the terminal nerves in the abdomen, but by allaying the irritability of the nervous centres. The best plan is to give cocaine at the very commencement of the voyage, for after vomiting has commenced the power of the drug over the affection is diminished. The dose should be repeated every two or three hours. It is best to use a solution of the strength of from two to five per cent., which, in order to obviate any unpleasant effects on the throat, should be enclosed in amylaceous capsules.—*The Lancet*, Nov. 14, 1885.

THE ACTION OF MERCURY UPON THE BLOOD.—DR. L. GALLARD, in an experimental study to determine the action of mercury upon the blood, concludes:

1. That the number of the red corpuscles may diminish slightly at the beginning of the administration without

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regaining their original proportion, but more frequently it increases progressively, until about the fourteenth day of treatment, to undergo at this time a slight diminution.

2. The hæmoglobin always increases progressively until about the twenty-fourth day of treatment, and having attained at this time its greatest abundance descends to its original proportion, and if the treatment is continued sinks below it.

3. The abundance of hæmoglobin increases in a proportion beyond that of the red corpuscles, and may even increase when these diminish, whereby mercury may be compared to those metals which induce the production of hæmoglobin.

4. The weight of the body increases almost constantly, though it is impossible to determine the exact relation which exists between such increase and the condition of the blood.—*Archives Générales de Médecine*, Nov. 1885.

THE THICKNESS OF THE CEREBRAL CORTEX IN MAN.—GIACOMINI (*Giornale della R. Academia di Med. di Torino*) gives the result of his microscopic investigations to determine the thickness of the cortical substance of the brain in man. He finds that it varies at different periods of life, and also according to its location.

The investigations were made upon fresh brains, deprived of their meninges.

The cortex was found to diminish in thickness at all points of the cerebral substance with increased age. In the pre-Rolandic region, in youths the thickness of the cortex is greatest at the internal face, but in adults and the aged at the external face.

The thickness of the cortex, which limits the fissure of Rolando, is greatest at the anterior parietes, least at the posterior.

The maximum thickness of the cerebral cortex is met in the region of Rolando precisely at the apex and walls of the ascending frontal convolution.

With regard to sex, the development follows the same laws; and in reference to age there are divers points of variation in the same brain.—*Annali Universali di Medicina e Chirurgia, parte revista*, September, 1885.

SANTONINE IN AMENORRHŒA AND DYSMENORRHŒA.—DR. J. CHÉRON recommends the use of santonine in cases of amenorrhœa and dysmenorrhœa, particularly in connection with adynamia, during the period which succeeds the more or less incomplete establishment of the menses at puberty.

The action of the drug is considered to be comparable to that of ergot, and in cases of chronic congestion, which produces amenorrhœa and dysmenorrhœa in the debilitated, its good results seem to be due both to its local and general tonic effects.—*Revue de Thérapeutique*, November 1, 1885.

ANIMAL HEAT DURING CONFINEMENT.—At a recent meeting of the Academie des Sciences, M. BONNAL reported the results of his observations taken to determine the temperature of both women and children at the moment of birth. His conclusions are the following:

1. Labor does not always appreciably elevate the temperature of the parturient woman.

2. Elevation of temperature after confinement is in relation neither with the duration of labor, the intensity of the pains, the age of the woman, nor with the time intervening between the rupture of the membranes and the birth of the child.

3. The temperature is not more elevated in primiparæ and in twin labors nor in breech and face presentations when there is no disproportion between the size of the child and the parturient passages.

4. Compared with that of the mother, the rectal temperature of the child at the moment of its birth is exceptionally below, rarely equals, and is almost always higher by about $\frac{1}{8}$ to $1\frac{1}{4}$° F.

CONNECTION BETWEEN AFFECTIONS OF THE EYE AND SPINAL CURVATURE.—DR. JASINSKI, a Polish physician, has traced a connection between errors of refraction and curvatures of the spine. In thirty-seven cases of curvature he was able to prove with certainty the previous existence of these or other abnormal conditions in the eyes, such as insufficiency of the internal rectus, astigmatism, asthenopia, etc. Myopia alone, however, does not appear to cause curvature. Unequal vision and insufficiency of the internal recti seem to be most efficient in the production of spinal curvature. Spasm of the accommodation also is capable of producing it. Removal or relief of the eye affection is followed by improvement in the spinal curvature—a troublesome and obstinate class of cases in orthopedic practice.—*The Lancet*, Nov. 14, 1885.

THE QUANTITY OF BACILLI IN THE EXPECTORATION OF CONSUMPTIVES.—DT. ZENKEWITCH, *Revue de Médecine*, as the result of fifty-one observations made in the clinic of Professor Mering, of Kiel, has determined:

1. That the quantity and quality of the expectoration have no influence upon the quantity of bacilli.

2. The statistics given by Balmer, Fraentzel, and Pfeiffer, to show that during the last days of life of the patient, the quantity of bacilli attains a maximum, are far from being exact.

3. The amount of bacilli in the expectoration does not depend upon the extent of the pulmonary disease.

4. It is proportional to the degree of fever, which depends also upon the rapidity of the destructive lesions of the disease.

5. Bacilli do not have their origin in the expectoration, whence they penetrate into the pulmonary tissue, but the contrary fact obtains. The statement that they develop mostly in the pulmonary parenchyma (Balmer and Fraentzel) is at least very doubtful.—*Journal de Médecine de Paris*, November 1, 1885.

TUMORS OF THE BLADDER.—DR. GIOVANNI MORI, in a study of tumors of the bladder, agrees with Pousson, in affirming:

1. The benign tumors of the bladder, papillomata, are more frequent than malignant neoplasms.

2. The favorite seat of these and other new growths is the back and posterior wall of the bladder.

3. They all have a tendency to be small.

4. Ganglionic engorgement and general infection are extremely rare.

5. Inflammatory lesions of the bladder and kidneys are slow, and are only exceptionally the direct consequence of the neoplasm, unless at a late period, when provoked by catheterization or ill-advised treatment.—*Annali Universali di Medicina e Chirurgia*, September, 1885.

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COCAINE IN WHOOPING-COUGH.—DR. PRIOR, of Bonn (*Berliner klinische Wochenschrift*), has treated several cases of whooping-cough with cocaine, with good results. As is evident on *a priori* grounds, he does not consider the drug a specific, but simply a means of relieving and reducing the number of the paroxysms. He used fifteen and twenty per cent. solutions to paint the fauces, the interarytenoid fossa, and the vocal cords, with the result of prolonging the interval between the attacks, and lessening the severity of these. The treatment was resorted to twice daily, great stress being laid on the necessity of producing at the time complete anæsthesia of the fauces and upper part of the larynx. Inhalation of a twenty per cent. solution four times a day was not so successful as painting.—*British Med. Journal*, November 21, 1885.

HABITUAL ABORTION AND KIDNEY DISEASE.—At the recent meeting of German scientists and medical men at Strasburg, Dr. Fehling, of Stuttgart, read a memoir on habitual death of the embryo in kidney disease. In the first case under his observation, premature expulsion of a dead fœtus occurred six times, and there was no evidence of syphilis. At every pregnancy, anasarca, albuminuria, and death of the fœtus, with severe cramp of the abdominal muscles, occurred, between the fifth and sixth month; the dead fœtus was expelled from three to ten weeks later. In the second case, similar symptoms appeared in a young unipara; the fœtus died, and thereupon the albuminuria abated. In the third case, the patient had borne two healthy children. During her third pregnancy, albuminuria and characteristic changes in the retina occurred; and, during the fourth, she was seized with hemiplegia; in both, a decomposed fœtus was expelled at the fifth month, with subsequent decrease of the albuminuria. In the fourth case, the patient, in her first pregnancy, aborted at the fifth month; then she gave birth at term to a recently dead child. In the third pregnancy, great œdema and albuminuria supervened, the child was stillborn, and the mother died of uræmia. Dr. Fehling believed that, in all these cases, kidney disease existed before pregnancy, which aggravated the renal symptoms. Winter had described two cases of premature detachment of the placenta, normally situated, where albuminuria existed. Dr. Fehling found atrophy of the villi of the chorion, with wedge-shaped or spherical infarcts in the placenta, in his cases, similar to renal infarcts. The infiltration of the chorionic villi and vessels of the umbilical cord with small cells, as seen in syphilis, was absent, nor did any of the embryo exhibit a trace of congenital syphilis.—*British Medical Journal*, November 21, 1885.

TOXIC ACTION OF COCAINE.—DR. ZIEM, of Dantzic, has communicated to the *Allgemeine medicinische Central Zeitung* the notes of a case, in which he applied two drops of a four per cent. solution of cocaine to the eye of a man, aged 40. In a few minutes, after the pupils had become dilated, the patient's face became pale, sweat broke out on his forehead, and his breathing became embarrassed. Dr. Ziem at once loosened his clothes and opened the window, but it was a quarter of an hour before he could return home. The man's wife said that he had not previously had syncope. He was of intemperate habits, and some years ago had been treated for disturbances of motor power in the lower limbs, apparently connected with syphilis. Dr. Ziem says that seventeen cases have been recorded in ophthalmological literature in which toxic effects followed the use of cocaine. In three it was injected hypodermically, and in fourteen dropped into the conjunctival sac. The cases have been described by Peck (1), Mayerhausen (1), Stevens (1), Reich (2), Knapp (3), Heuse (4), and Bellarminoff (5). In some cases the symptoms have been transient, consisting of pallor of the face, giddiness, and sweating of the face or neck; in others there have been dyspnœa, great feeling of prostration, malaise, and apathy, lasting sometimes for several days. Vomiting and headache have been rarely present. In one case, the application of fifteen drops of a two per cent. solution to the conjunctiva was followed by tottering gait, difficulty of speech, confusion of the mind, and extraordinary restlessness; and, in another, the subconjunctival injection of about eight drops of a 3.5 per cent. solution produced convulsions and loss of consciousness. The strength of the solution used was 4 per cent. in eight cases, 2.5 per cent. in four, and 2 per cent. in three or four others. The quantity generally varied from two to four drops. The subjects were, in some cases, feeble, aged women; in others, they were strong and healthy individuals, both male and female.—*British Medical Journal*, November 21, 1885.

TUBERCULAR MENINGITIS CURED BY IODOFORM.—A Swedish physician, Dr. Emil Nilsson, alleges that he has cured an undoubted case of tubercular meningitis by frictions on the shaved scalp with iodoform ointment (1 to 10). The patient was a boy, aged 8, whose mother had a family history of phthisis, and four of whose brothers and sisters had died from tubercular meningitis. The symptoms in this child's case were similar to theirs—headache, torpor, convulsions, strabismus, and pyrexia. He was at first treated with calomel and iodide of potassium, but did not improve; and, after having been under treatment a week, became distinctly worse, being unable to take food or medicine. The pallor of the face, which had preëxisted, gave way to flushes of the cheeks. The child threw himself out of bed, and presented severe clonic spasms of the limbs and of the facial muscles. The head was then shaved, and iodoform ointment rubbed in, an oil-skin cap being put on. The friction was repeated three or four times in the day, and the next day there was a decrease in the convulsive movements, the sleep was calmer, and the spasmodic contractions, which had previously been excited by the slightest noise, now ceased to be so. Consciousness shortly afterward returned, and the child's face became of a more natural color. This, however, was accompanied by a severe coryza, redness of the lips, and an irritable cough, the breath smelling strongly of iodoform. The ointment was discontinued, and syrup of iodide of iron given. The unpleasant symptoms rapidly disappeared, and the child was soon running about in good health.—*British Medical Journal*, November 21, 1885.

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EXTIRPATION OF MALIGNANT TUMORS OF THE SKULL.

THE past few years have witnessed a great deal of activity in the study of the surgical treatment of diseases and injuries of the skull; and the increased confidence secured by the success of antiseptic methods of operating, has led to a revival in this field of surgery not unlike that which took place at the beginning of the last century, under the stimulus of the prizes offered by the Academy of Surgery of Paris. In this country, DR. JOHN B. ROBERTS has attracted renewed attention to the question of freely attacking the cranium, under circumstances which to many others do not appear to require such intervention; while in Germany, WIESMANN has followed a number of careful students of injuries of the head, among whom VON BRUNS and VON BERGMANN are conspicuous, with an elaborate study of the modern indications for the use of the trephine.

In this admirable article, contained in the *Deutsche Zeitschr. f. Chirurgie*, Bd. xxi. and xxii., 1885, there is a summary of a number of cases of the removal of tumors involving the bone, with a detailed account of one operation by Krönlein, and a strong recommendation of this procedure based upon the cases cited. Krönlein's patient was a woman of middle age, who had a carcinoma of the forehead, which had been excised thrice, and burnt out with caustics twice. After this she came, in 1881, under the care of Krönlein, having on her forehead an ulcer 2½ inches wide, extending from the root of the nose beyond the line of the hair. In the centre the bone was bare. Under antiseptic precautions, Krönlein extirpated the whole growth, with a piece of the bone and of the dura mater as large as a five dollar gold piece, as well as nearly half an inch of the falx cerebri. The wound was washed out with carbolized water, and dressed with carbolized gauze and salicylated cotton. The result was only fair. In two months a small secondary growth had to be removed with the Paquelin cautery knife. Hernia cerebri soon occurred, and was followed by brain symptoms, vomiting, paralysis, and death three months after the operation. The autopsy showed the existence of meningitis and encephalitis.

A more fortunate termination occurred in a case of GUSSENBAUER, which he describes in the *Prager Zeitschrift f. Heilkunde*, 1884, Bd. V. His patient was a man, 25 years old, who had a sarcoma of the frontal bone, for the cure of which a flap as large as half the forehead was turned up, and the bone cleared away with chisel and forceps, over a space about 3 by 3½ inches. The dura was not cut, although the tumor had to be cut loose from it at one point. The wound healed promptly under antiseptic dressings, and two years afterward there had been no return of growth.

PAULLY, also, has recently reported a successful operation of this sort in the *Verhandlungen der d. Ges. f. Chirurgie*, 1883. His patient was likewise a man, 26 years old, who had a fibrous sarcoma of the forehead. He was subjected to an operation in March, 1882, in which the bone was chiselled out to a moderate extent, and the tumor was separated from the dura. The wound granulated nicely, but the new growth returned in the outer part of it in about two months. At this time it was scraped out with the sharp spoon, and a plastic operation was done to cure an ectropion which had appeared. A third operation was required for recurrence after the lapse of six months, and the frontal bone was removed from the root of the nose to the zygoma, and up to the hair line. In a month the wound was quite well healed, and about five months afterward the patient was shown to the Congress of German surgeons, with the cicatrix complete, but with an ectopion, and an enlarged gland behind the angle of the jaw—whether connected with the growth or not, was not known.

These three operations, with one done by Volkmann, in 1875 (in which the longitudinal sinus was accidentally divided, air entered it, and the patient died promptly), may be taken as fair representatives of the procedure we are considering, illustrating every possible termination of it, from immediate death to apparently complete cure.

A review of the history of operations of this sort, shows that they are not altogether novel. The earliest records of surgery contain accounts of operations of trepanning for fungous tumors of the dura

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mater. Most of these accounts are not very instructive, because it is not clear whether the writers referred to new growths, or simply to hernial protrusions of the brain, the probabilities being generally in favor of the latter. But, as early as the seventeenth century there are unmistakable records of such operations as we are discussing. Sand has recorded in *Halleri Disput. Chirurgie, select.*, Vol. I., an operation done in 1696, in which by trephining at intervals and removing the intervening bone, an aperture 6½ inches in circumference was made at the junction of the sagittal and coronal sutures; after which, whatever fungous growth there was, seems to have been removed piecemeal with the dressings. In 1757, Volprecht reported to the French Academy of Surgery a case in which, two years before, an attempt to remove a fungus of the occipital region had been begun, by trephining to one-third of the extent of the circumference of the tumor, and then abandoned, because to continue would have necessitated passing across the occipital protuberance, and, it was feared, wounding the sinuses under it. The autopsy showed that this fear would not have been realized, as the bloodvessels had been pushed away by the tumor; but there was also a new growth at the base of the skull, which would have frustrated the hopes of the operators.

This case was cited among others, by Louis, in his article "Tumeurs fongeuses de la Dure-Mère" in the *Mémoires de l'Ac. Royale de Chirurgie*, 1774, which he recommends, in the case of what was then known as fungus of this membrane, but which was probably often sarcoma, early opening of the dura mater. In 1816, Baron Boyer, influenced, possibly, by the views of Louis, urged operation for fungous tumors of the dura.

The first surgeon to put these courageous suggestions into practice, as far as we know, was Bérard, who, in 1833, published in the *Gazette méd. de Paris*, p. 735, an account of a case in which he removed a recurrent fungus of the vault of the cranium as large as a fist, by making 16 openings with the trephine, on two successive days, and clearing away parts of both parietals, and of the frontal, temporal, and sphenoid bones, covering an extent of 5 by 4½ inches. The dura mater was also cut out, with a piece of the falx and longitudinal sinus. The patient died in 34 hours. In considering this result, it must be remembered that these operations were done without anæsthesia.

The next operation to which we have access, was done by Volkmann, in 1875, and to which we have made reference in the earlier portion of this article. After this comes a list of operators, almost exclusively German, including the names of von Bergmann, Novaro, von Langenbeck, Czerny, Küster, Krönlein, Gussenbauer and Paully, who, stimulated by the increasing number of recoveries after the operation, added to the total number thirteen cases in the four years from 1879 to 1882.

In looking over the cases reported with sufficient detail to make them valuable for analysis, we find only 15 done since the adoption of antiseptic methods. Of these, 13 recovered from the operation, and 2 died, one being the patient of Volkmann, and the other that of Krönlein, already mentioned. As to sex, 3 were male, 10 were female, and the sex of 2 is not given. The youngest patient was 19 years old, and the oldest 64; the average age was 44 years. In eight cases the dura was cut into or cut away; the falx was cut four times; the longitudinal sinus was divided twice; and some brain tissue was removed twice; but in no case, except that of Volkmann, was this complication followed by the death of the patient. The extent of bone removed was in all cases considerable, and in some very great. In five cases it was over three inches across. The character of the tumor in these cases was: Myxoma, 1; carcinoma, 2; epithelioma, 1; cancroid, 2 (both in same patient); mixed connective tissue, 2 (both in same patient); and sarcoma, 7 (2 in one patient).

The 15 operations were done on 12 patients, in 10 of whom the tumor occupied the frontal region; in 1 it is said to have been on the side of the head; and in 1 the location is not given. In only 1 of the 15 operations did recurrence take place before the healing of the wound; and speedy recurrence took place in only 4 cases.

The operations were all done, as is stated or fairly presumable, with strict antiseptic precautions. After some of them union of the wound took place by first intention, and in almost all with great promptness.

With this we must leave the subject, simply remarking that such a showing seems to justify the warm approval which this operation has been meeting with in Germany of late, notwithstanding that it is diametrically opposed to what is found in most of the modern works on surgery in the English language.

THE CAUSES OF SUDDEN DEATH.

FROM year to year, the mariners as they passed to and fro saw no change in the Hell Gate rock at low tide, yet there had been unseen forces at work quietly undermining the rock and preparing for its destruction, which came at last suddenly, effected by the touch of a child's hand. So, too, may a man present no outward change, and go about his business as usual, showing neither to himself nor to his most intimate friends any evidence of the secret processes at work within him, and yet the end may come as an explosion, startling in its terrible suddenness.

Theoretically, the animal machine should be constructed like the Deacon's "One-hoss-shay," each

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component of equal strength and durability, and no one should be the first to wear out, but all should go together. We occasionally see this, not often it is true, but it does occur; the organism gradually wears out in old age, all parts go together, and we cannot say that any one gave way first. This is Bichat's natural death. Few reach it; for the majority, death ends a struggle with evident disease, often painful, tedious, and prolonged. But it may come without any warning, and strike down the active, vigorous man in the apparent possession of full powers and faculties. Nothing is truer in the matter of health, than that "the outward shows may be least themselves." So insidiously may the processes of disease work in the system, that, like the rock, the constitution may be seriously undermined, and present very little external evidence of the deep-seated changes, which only await some slight disturbance—the touch of a child's hand—to cause destruction.

The weak link in the chain, to change the simile, is the one to snap, and in a man with an average constitution, living an active public life, the weak link is apt to be the one upon which the greatest strain is constantly thrown. It is not difficult to show that in the labor of life the circulatory system bears the brunt of the strain, and is the one which has to meet every extra call or demand on the part of the body, and we consequently find that in a sudden break-down of the vital machinery this is the part which has usually given way. The cases of very rapid death are almost always due to affections of the heart, or of the great vessels. Inhibition from shock may stop a normal heart, but commonly when there is sudden cardiac failure, the organ has been more or less diseased. Fatty degeneration, extensive disease of the coronary arteries, and insufficiency of the aortic valves, are conditions of the heart itself most often met with in these cases. In the first of these it may occur without any preliminary symptoms.

Aneurism of the aorta is responsible for a very considerable proportion of all cases of sudden death, and it is surprising how frequently the condition is unsuspected. Associated with chronic vascular changes, especially in the smaller vessels, we find degeneration of the kidneys and hypertrophy of the left ventricle of the heart. This triple combination forms the chief anatomical features in chronic Bright's disease, an affection often latent, which certainly seems to be on the increase, and which brings with it special perils, of which apoplexy is the most serious. In nine of ten deaths from brain disease, the lesion is vascular, but, except in large hemorrhages or when the medulla is directly involved, the death is rarely instantaneous. Sudden, unexpected death from paralysis of the respiratory centre is not common apart from vascular changes.

The recent death of Vice-President Hendricks, although sudden, could not have been entirely unexpected to his intimate friends, for he had, within the past five years, two attacks which indicated serious degeneration in his circulatory system. Four years ago he had a slight hemiplegia, from which he recovered completely, and about 1883 he had gangrene of the foot, which got well with the loss of a toe. After two such knocks, we do not wonder that death should burst in the door without further parley. The details of his last illness are rather meagre, but he appears to have returned from Chicago with a heavy cold, for which he kept his room and bed. The actual cause of the abrupt termination of the illness is, in the absence of a post-mortem, a matter of conjecture, but, in the light of the history of his previous attacks we may reasonably attribute it to heart failure or paralysis, possibly from fatty disease or arterial break-down.

In the case of a man like Mr. Hendricks, whose work was not completed, we may regard sudden death as a calamity, but it is not so in all cases. Better the sharp, quick stroke which at once ends all, than to lose by a gradual process of disintegration those faculties of mind and body which make life supportable, and creeping at a slow pace along the way to dusty death finally to reach a condition which may be truly described as "*ita sine vitâ vivere; ita sine morte mori.*"

REPORT OF THE ENGLISH CHOLERA COMMISSION.

FROM abstracts which have appeared of the report issued by the India Office in London, we gather that DRS. KLEIN and GIBBES have not receded from their original position, but maintain the innocuous character of the comma-bacillus of Koch. While it is allowed that the comma-shaped bacillus of the mouth, observed by Lewis, and the bacillus of cholera nostras, described by Prior and Finkler, are not identical with Koch's organism, yet their occurrence is held to do away with the diagnostic value of the latter. Other organisms are stated to grow on culture media in a way very similar to Koch's bacillus, though it is admitted that the gelatine cultures of the bacillus found in cholera nostras differ in an unmistakable way. The second point on which they differ from Koch, is the prevalence of the bacilli in the intestines, for in their experience these organisms may be, in typical cases, very scarce, and it was found that the longer the examination was delayed or the longer the patient was *in articulo*, the greater the number of bacilli present in the intestines. A peculiar, short, straight microbe was present in many cases, but it, with the comma-form, was regarded "as something extraneous, present only in tissues practically dead in the cavity of the alimentary canal." The third point relates to the artificial pro-

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duction of the disease. The results of the experiments were uniformly negative.

The conclusion they have reached is that the intestines do not contain the cholera poison in the shape of an organism, but that the virus is produced outside and independently of the body of the cholera patient, and is of the nature of a chemical or non-organized ferment.

This report practically reopens the whole question, and the points at issue must be decided by independent and competent observers. Dr. Watson Cheyne's suggestion of a commission would certainly now be in order; meanwhile, we shall await with interest the results of the study of the disease by the American Commissioner, Dr. Shakespeare.

SANITARY CERTIFICATES.

A WRITER in *The Sanitary Record* tells us that, in looking through a boarding-house at Ramsgate, he found, hanging against the wall of the hall, a printed certificate, signed by the Medical Officer of Health and by the Surveyor of the Improvement Commissioners, stating the results of a sanitary examination of the premises: it was to the effect that the drains of the house were efficiently trapped and ventilated; that the water-supply was derived from the mains, was abundant, and ran no risk of being contaminated; and that the premises generally were in a wholesome and good sanitary condition. This is a practical exemplification of the idea that a party proposing to occupy a house has a right to information relating to its sanitary arrangements. He is unable to gather this knowledge from a personal examination, and, if he depends on the agent or landlord, he may or may not be correctly advised. An authorized and reliable certification of the sanitary condition of the premises will settle the doubt.

No house should be allowed to be licensed as a boarding-house or as a hotel without a sanitary certificate based on a record of facts. It is a question whether such a condition can be legally imposed. If it cannot be enforced by legal enactment, it can and should be made obligatory by the pressure of popular sentiment and demand, which often indirectly accomplish what the law directly fails to secure. If the public avoid such houses as are not certified, by competent authority, as having proper sanitary arrangements, the owners of such houses will be compelled to apply for the necessary record, which is tantamount to a request for a thorough sanitary inspection and the adjustment of the arrangements of the house to the standard of the regulations upon which a sanitary certificate must be based. If anyone fails to demand a certificate and exposes his own health and that of his family to risk, he will only have himself to blame.

There is a wider application of this subject, which is worthy of thoughtful consideration. A thoroughly organized and efficient health department ought to be able to furnish, from the records, a sanitary history of every house in the town or district. By a careful sanitary survey, it is possible to place on record a brief description of every dwelling, showing the plan and character of the drainage arrangements, the location and character of the cesspools, the conditions of the soil, the nature of the water-supply, the number and causes of deaths which have occurred in the house and in the square in which it is located, etc. Such a record could be kept up without great labor, and would be invaluable for the information and safety of the persons proposing to rent or buy and occupy a house. The record of title is not more important in its way than a certified copy of the sanitary history of the premises is from a health standpoint. The neglect of the former may involve loss of property, but the neglect of the latter may result in loss of health, it may be of life.

REVIEWS.

VON ZIEMSSEN'S HANDBOOK OF GENERAL THERAPEUTICS, IN SEVEN VOLUMES. Vol. I. DIETARY OF THE SICK. Vol. II. METHODS OF TREATMENT. Vol. III. RESPIRATORY THERAPEUTICS. New York: William Wood & Co., 1885.

THIS work, which was in process of publication in Germany for about four years, was concluded in 1883 by the issue of what forms the first volume of the English translation. Attached to this is a general introduction and conclusion to the Handbooks of General Therapeutics and of Special Pathology and Therapeutics (Ziemssen's Encyclopedia), in which the editor tells us that the original intention was for the work on therapeutics to form part of, and supplement, the larger handbook. And now, on the completion of the programme, he discusses the question whether any serious objection can be taken to it, either from a theoretical or practical standpoint. The rapid progress of the past decennium has rendered necessary a critical mustering and inspection of our gains, that we may know what and how much we may register as the certain property of science. To do this effectively, a division of labor was essential, and "fundamentally revisional works of this kind in the hands of eminent specialists, become mines rich in ideas and springs of manifold encouragement to fresh work." He acknowledges that the work is not free from the defects inseparable from multiple authorship, but "so long as the most important principles of the science are contested and the struggle of opinion sways to and fro, so long it can do no harm if the strife of theories makes itself apparent in a work that professes to reflect the existing state of science." That the work has attained its aim, is attested by the tokens of kindly acknowledgment which have come from all branches of the profession, and he lays special stress on the impartial judgment of the foreign press.

Volume I. is a complete text-book of *Dietetics*, from the pen of Professor Bauer, of Munich, with a supple-

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ment on the *Koumiss Cure*, by Dr. Stange, of St. Petersburg. The translation is by Edward F. Willoughby, M.B. An idea of the scope of the work may be obtained from the following headings of sections: Aims of Dietetics in Disease, The Value of the Several Foodstuffs, Preparation and Cooking of Food, Digestion and Utilization of Nutriment, The Demand of the Organism for Nutriment, Special Dietetics for the Sick, Dietetic Modes of Treatment.

We do not know any other work of the kind dealing so thoroughly with these questions.

Volume II. comprises *Antipyretic Methods of Treatment*, by Professor Liebermeister; *Antiphlogistic Methods of Treatment*, by Professor Jürgensen; *Epidermic, Endermic, and Hypodermic Administration of Medicines*, by Professor A. Eulenberg. The translation is by Professor Matthew Hay, of Aberdeen, who has added a few notes and to the end of the volume a short section on certain new antipyretic medicines, rendered necessary from the fact that the original appeared in 1880. The section in antipyretics contains four chapters: I. Abstraction of Heat; II. Antipyretic Medicines; III. Antipyretic Dietetics; and IV. Application and Results. The antiphlogistic methods of treatment and the two subdivisions on bloodletting and transfusion are most elaborately considered by Dr. Jürgensen. In the concluding section there is a full discussion upon the various modes of introducing medicines into the body through the skin.

Vol. III., devoted entirely to *Respiratory Therapeutics*, is by Professor Oertel, of Munich, and is translated with a preface and notes by Professor J. Burney Yeo, of Kings College, London. This forms the largest volume of its series and is, as Dr. Yeo says, "a timely and unmistakable testimony of the importance which is attached in Germany, at any rate, to the methods therein described, of treating the diseases of the respiratory organs." It is a manual upon the use of inhalations and the pneumatic methods.

The departments of therapeutics which Prof. Oertel deals with in this exhaustive manual, have certainly not received from the profession in this country the attention they deserve, and it is to be hoped that a careful study of his work will do much toward removing the prejudice against certain of these methods, which the extensive experience of French and German physicians has found to be of signal benefit in suitable cases.

SOCIETY PROCEEDINGS.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, November 10, 1885.

THE PRESIDENT, ROBERT F. WEIR, M.D., IN THE CHAIR.

NEURALGIA OF THE SUPERIOR MAXILLARY AND INFERIOR DENTAL NERVES; RESECTION; CURE.

DR. WILLIAM T. BULL presented a man showing the results of two operations, one performed upon the superior maxillary and the other upon the inferior dental nerve for obstinate neuralgia. These operations were performed fifteen months ago, and there had been no return of the trouble whatever, and he thought the case might be regarded as one of cure.

A night watchman, sixty-two years of age, was admitted to the New York Hospital, July 29, 1882. For several years he had had, at intervals, some pain in the right side of the face, which, within a year, had become more severe and almost continuous. He was rheumatic. had not had syphilis, and the history of malaria was doubtful. All sorts of medical treatment had been resorted to, and many teeth, in both the upper and the lower jaw, had been extracted.

When admitted he was suffering from the same pain, which was partly controlled by hypodermic injections of morphine. There were tender points over the infra-orbital and mental foramina, and over the condyle of the jaw. He was slightly emaciated, and could not eat solid food, and also had pain in talking.

Aug. 11, 1884. The superior maxillary was exposed in the floor of the orbit, and three-fourths of an inch removed. The artery was divided, and bled sharply. It was stopped by a plug of catgut, which was continuous with a few strands emerging from the centre of the wound. Peat and bichloride dressing. The wound healed primarily in four days.

Aug. 18. The inferior dental nerve was exposed by a vertical incision over the ramus of the jaw, and chiselling through the outer wall of its canal (Warren's operation). The incision was placed low enough to avoid Steno's duct, the fibres of the masseter with the periosteum were raised with the elevator, and the upper angle of the wound strongly retracted. It was a narrow wound to work in, but there was little difficulty in removing a rectangular piece of bone, whose dimensions were one-fourth by three-fourths of an inch. Three-quarters of an inch of the nerve were removed. In separating it from the artery the latter was wounded and tied with catgut. A small bone drain was left in the wound, which was treated like the other. At the end of a week, when the dressing was removed, the wound had healed except at the orifice of the tube, and this closed promptly under an iodoform scab.

From the time of the operation the man experienced no pain whatever in the face, and there was complete anæsthesia over the areas supplied by the nerves. There was no facial paralysis.

Now, fifteen months after the operation, he continues perfectly well. There has been a dull aching in the lower jaw in damp weather, but it is trifling in degree, and does not increase in either frequency or severity.

DR. R. H. AMIDON kindly examined the man lately, and stated: "I tested the sensibility with a faradic current and a single wire electrode, and found complete anæsthesia on the right side of the face over an area included between two lines running from the outer and inner angles of the orbit downward to the line of the chin. It does not reach far back on the cheek, or much under the chin. It does not reach the lower palpebral margin nor *quite* to the median line on the nose; in the lips and chin it extends *exactly* to the median line. It involves the gums on the right side up to the median line.

"At the outer, upper, and nasal border of the area the anæsthesia shades off into normal perception. On the lips and chin the anæsthesia is complete right up to the median line, and the transition to normal sensibility is sudden.

"There is no anæsthesia of the palpebral conjunctiva

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of the right lower lid or the right internal canthus, or the gums of the upper jaw or the tongue.

"There is no paralysis of any facial muscle. He complained of his right eye being weak since the operation.

"I find the fundus normal and the vision good, but to the prism test I find that he has an insufficiency of the interni (probably the right) of five degrees for distant vision, twelve degrees for near vision, and he reads much better with a prism to correct that.

"Query: Did you injure, during the operation, the branch of the inferior division of the third nerve which passes under the optic nerve to the right internal rectus?"

THE PRESIDENT said there was one point worthy of special note in Dr. Bull's case, and that was the extremely satisfactory result from an operation performed externally instead of dividing the inferior dental and maxillary nerve within the mouth.

DR. MARKOE said he has had a satisfactory result in a similar case, but the operations were not performed at the same time. He operated upon a patient a number of years ago who had suffered for a long time, and severely, with neuralgia in the parts supplied by the inferior dental nerve. He trephined the canal and cut out about one inch of the nerve, and with perfect success. About three years afterward the patient came to him with neuralgia of the superior maxillary nerve, and he performed the same operation, cutting out about one inch of the nerve, going back to the point where it enters into the antrum, and destroying the nerve as far back as was possible, with the points of the scissors, and again with success, which lasted a little more than two years, when the patient returned with some slight neuralgia, affecting the region supplied by the supra-orbital nerve. The man was unwilling to undergo further operation, and disappeared from observation. Up to that time, however, covering a period of five or six years, he had experienced perfect relief.

DR. J. C. HUTCHISON presented

A SPECIMEN OF URINARY CALCULUS, WHICH WAS SPONTANEOUSLY FRACTURED IN THE BLADDER.

The specimen was removed by bilateral lithotomy from a man 23 years old, who gave the history of stone in the bladder beginning when he was 5 years old. His general health is excellent and he was always able to attend to his business without much suffering until he began to drive a cart in the city of New York, when he experienced considerable pain in the bladder after a day's drive over rough stones.

Three weeks before he applied for treatment his symptoms suddenly grew worse, and the pain was so great that he was compelled to give up work. On exploration of the bladder with a searcher, Dr. Hutchison at once detected a calculus. An instrument had never before been introduced into the bladder. Bilateral lithotomy was performed and two fragments of stone, which were shown, were removed. The patient made a satisfactory recovery. The surface of the stone shows no marks of an instrument with which it may have been broken, and the fractured surfaces are not covered with urinary deposits or smoothed by attrition, showing that the fracture was quite recent. All the evidence goes to prove that the fracture was spontaneous, that it was the result of forces acting from within, and that it occurred at the time there was a sudden increase of pain in the bladder, three weeks before the operation.

The stone is composed of calcium oxalate with a uric acid nucleus. It weighs 859 grains, is disk-shaped, measures 1½ inches in its transverse and 1 inch in its vertical diameter, and its surface is smoothly mammillated.

Dr. Ord,[1] in a paper read before the London Pathological Society, expresses the opinion that there are three methods by which a calculus may spontaneously fracture: (1) From forces arising within the calculus itself; "in an altered state of the urine the nucleus becomes swollen and acts as a bursting charge in a shell;" (2) from molecular disintegration; (3) from weakness of the layers within the crust allowing its fracture. I cannot understand how either of these methods could have caused the fracture in this specimen, nor have I any satisfactory explanation to offer.

Dr. Hutchison also presented 22 calculi removed by median lithotomy from a gentleman 66 years old, on whom he had performed litholapaxy two years before. They vary in size from a pea to a hazlenut, the surfaces are fissured, but not rough, and are of a light red color. A section was made of one for examination. It was composed mainly of uric acid with a small amount of calcium phosphate. The total weight when removed was 478 grains. The patient recovered, but died some time afterwards from causes not connected with the bladder.

He also showed the fragments removed from this patient two years before by rapid lithotrity. They weighed 225 grains, and are composed of uric acid and calcium oxalate.

DR. C. T. POORE presented two small calculi removed from a child who was operated upon in May last, by median lithotomy. The child was three and a half years of age, and he performed the second operation in September last.

THE PRESIDENT asked whether the child suffered very much after the first operation.

DR. POORE replied that the father, although perhaps his statement could not be accepted without allowance, said that the child suffered a great deal after it left the hospital where the first operation was performed. At time of discharge after the last operation, the child had no bladder symptoms.

THE PRESIDENT said he asked the question because it is well known that in the old subject two stones not infrequently exist, and escape detection. One case he recalled particularly, in which the patient was operated upon by Dr. Van Buren, and got a great deal of relief, and then pain came on again and he was lithotomized one year afterward by Dr. Buck. At the second operation, a stone as large as the original one removed by Dr. Van Buren, about the size of a walnut, was removed, and there was no evidence of facets upon its surface, nor in its interior structure after division, and the explanation of the presence of the second calculus was found in the fact that an unusually large bar between the mouths of the ureters divided the bladder into two parts.

DR. BUCK was much struck by this condition found

[1] British Medical Jonrnal, May 10, 1879, and Sept. 7, 1878.

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at the time when he operated, and as the patient complained about two weeks afterward of some pain, he anæsthetized him again, and made another search, and found a small fragment of a calculus which had lodged in one of the irregularities of the prostatic portion of the urethra.

DR. POST has met with two cases in which there was contraction of the bladder between two calculi so that the stones could not come together. His cases occurred in young subjects. In each case one calculus was near the urethral orifice of the bladder and the other was far back in the cavity, and there existed a contraction of the bladder between the two which could be felt with the finger.

DR. LANGE directed attention to one way of treating

FISTULA IN ANO,

namely, cutting the entire canal out and sewing up the wound. In most cases it was a simple procedure, and he would be much obliged if the members of the Society would try it. He adopted it for the first time about two years ago in the case of a woman who had a deep-seated fistula. In that case he had a complete result, and the patient recovered in about fourteen days. He had tried it in a limited number of cases, but he had not succeeded in all. With improved technique, he thought the results would become better. So far, at least, the results were encouraging. Having a probe in the canal, he dissects all about the probe and cuts the entire fistulous canal away, including some of the tissues surrounding it, and then with catgut sutures closes the entire wound; and, besides, inserts several silkworm-gut sutures around the whole mass, as after other plastic operations, to relieve torsion and to prevent eventual separation at the wound in consequence of too early absorption of the catgut.

THE PRESIDENT said he had performed this operation four times with satisfactory results. In one instance the fistula ran from the labium to the rectum. His first knowledge of the operation was obtained from the *Proceedings of the American Gynecological Society* and from a Western surgeon who reported a number of cases.

DR. MARKOE had performed the operation twice by scraping out the fistula, but he did not get good results.

DR. GERSTER had employed this method in a limited number of cases; and, as Dr. Lange had stated, with some good results, and with some failures. He thought the method applicable in cases where the fistula is simple; where, however, there are several fistulæ crossing each other, as occasionally occurs, and running perhaps in a spiral line around a part of the circumference of the rectum, and where, after removal of all the lining of these different canals, a complicated wound remains, the results had not been very satisfactory. The relations of the wound are such, that absolute contact of all the surfaces cannot be brought about. and accumulations of secretion with retention in pockets, frustrate primary union. But certainly in simple cases, however deep, that is, up to a certain extent, the method is a rational one, and it shortens the time of cure very considerably.

NEW YORK STATE MEDICAL ASSOCIATION.

Second Annual Meeting, held in the hall of the Murray Hill Hotel, New York, Nov. 17, 18, 19, and 20, 1885.

THURSDAY, NOVEMBER 17TH.—THIRD DAY.

MORNING SESSION.

The number of members registered was 220. The total fellowship for the entire State is about 514.

THE NOMINATING COMMITTEE REPORTED THE FOLLOWING NOMINATIONS.

President.—Dr. E. M. Moore, of Rochester.

Vice-Presidents.—Drs. William Gillis, H. Van Zandt, Frederick Hyde, and Desault Guernsey.

Council.—Drs. E. M. Lyon, Ira H. Abell, Thomas Wilson, F. W. Ross, S. T. Clark, E. S. F. Arnold.

The Secretary was instructed to cast the ballot of the Association, which he did in the affirmative, and the President declared the gentlemen named elected.

DR. FELL, of Erie County, then read a paper on

SOME ETIOLOGICAL FACTORS IN THE ACNE FORM OF DISEASES.

He described some cases of rebellious acne which had come under his observation and which had finally yielded to treatment, the cure, he believed, bidding fair to be of a permanent nature. This opinion was founded on his views regarding the possible or probable etiology of the disease. It was true that his views are new, but, so far as his own observation had gone, they were substantiated by facts. In a large number of examinations of the contents of the little acne tumors he had always been enabled to find the demodex folliculorum, usually from six to ten in number; while the presence of this mite in the skin was not of unusual occurrence, and had long been known, it had not been regarded as the cause of acne form of disease. He had found them in the pus or oil globule, and not in the indurated matter. While their presence in few numbers might not give rise to apparent disease of the skin, he thought that when large numbers exist they may stand in the relation of etiological factors of considerable importance.

DR. JANEWAY, by request, made some remarks on

OXYGEN IN THE TREATMENT OF PNEUMONIA.

According to his experience, oxygen inhalation in pneumonia is of marked benefit. It is especially serviceable in commencing cyanosis or just previous to this symptom; its use should not be delayed until cyanosis has become well marked. If employed at the proper time, it will often be found to tide life over the critical point and lead the patient on to recovery.

Dr. Janeway would also add to the discussion on pneumonia, that he had seen one case of pneumonia in which the patient had a relapse at the end of a week. it being as much a case of relapse as are cases of relapse of typhoid fever. He said, further, that he had seen a number of cases in which tuberculosis of the upper lobe of the lungs had occurred in patients who had suffered from pneumonia, and he was of opinion that the attack of pneumonia had left the lung in a weakened state, fitting the soil for the development of the tubercle bacilli.

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Dr. Janeway then proceded to read his

ADDRESS ON PATHOLOGY,

which was devoted largely to mention of the advances made in pathology, particularly during the past few years, and the relation of pathology to exact diagnosis and the etiology of disease. The importance of culture methods adopted by Koch, the value of the discoveries of Pasteur regarding anthrax and hydrophobia, etc., received attention. The field for labor and new discoveries is still great, and offers excellent opportunities for able and progressive young men. The backwardness of this country in new scientific discovery was attributed in large part to want of government aid, such as is given in Germany and other countries of Europe. Special paths for investigation are offered in tetanus, anæmia, malignant tumors, lithæmia, etc. Dr. Janeway thought vaccination should be done, if possible, before the third day after exposure to smallpox if it were desired to abort the attack, otherwise it may be too late.

THE LIBRARY COMMITTEE

made its report, by which it appeared that a room had been secured in the Carnegie Laboratory; the entire number of volumes was about 3450, and more than 4000 pamphlets had been received. Some interesting specimens had been presented which, it was hoped, would form the nucleus of a museum in connection with the library.

AFTERNOON SESSION.

DR. W. T. SEYMOUR reported

A CASE OF GALL-STONES, PATENT AND CONCEALED; EXPLORATORY LAPAROTOMY, WITH AUTOPSY EIGHT WEEKS LATER.

The usual symptoms were present, but the gall-bladder could not be felt through the abdominal walls. Nevertheless, the patient's sufferings were such, and her health so reduced, that an incision was made for the purpose of removing the supposed stone or stones. The gall-bladder was found empty; there was a hard nodule involving the cystic and hepatic ducts, and believing that the patient's symptoms were due to malignant disease, the abdominal wound was closed. Eight weeks later the patient died, markedly emaciated and jaundiced. In the upper margin of the right lobe of the liver was the cancerous patch; the gall-bladder was empty; the common duct impervious; the junction of the cystic and hepatic ducts was involved in the hard mass, which was of the size of a hen's egg and continuous with the right lobe of the liver. The hepatic duct was enormously dilated, and filled with gall-stones the size of a peachnut; an ulcerative opening led from the upper part of the hepatic duct into an abscess cavity, an inch and a half in diameter, in the right lobe of the liver, where a gall-stone was found. The hard mass was cancerous.

DR. ROBERT NEWMAN then read a paper on

CAUSES OF FAILURE IN THE TREATMENT OF URETHRAL STRICTURE BY ELECTROLYSIS.

He said this method of treatment had been so successful in his own hands that he was not aware of any failures until his attention had been drawn to a paper on the subject quite recently. He then made some inquiries and found that failures did sometimes occur in the hands of those of little experience with the method. The cause of failures could be given in two words—bad management. This could be classed under three heads—incompetence on the part of the operator, error in diagnosis, and faulty instruments. These headings were treated of at considerable length, the points being sustained by reference to letters, cases, and instruments.

DR. G. C. H. MEIER corroborated the statements of the author from his own experience, and testified to the excellent results obtained by this harmless method of treatment when properly carried out. It was true that it was not until he had assisted Dr. Newman in his public and private practice for some time, that he was enabled alone to give the patient the full benefit of the treatment of urethral stricture by electrolysis. The paper was also discussed by Dr. Manley.

DR. W. W. SEYMOUR the read a paper on

PELVIC HÆMATOCELE; ITS DIAGNOSIS AND TREATMENT.

A great many cases had occurred in his own and in his father's practice, going to show that pelvic hæmatocele is of much more frequent occurrence than is stated by most authorities. Speaking of treatment, he said that where there is a tendency to increase, or to interfere with the function of neighboring organs, aspiration may give prompt relief. Aspiration failing, and suppuration taking place, he was disposed to make incision per vaginum, and irrigate.

MONDAY, NOVEMBER 20TH.—FOURTH DAY.
MORNING SESSION.

DR. SAMUEL W. SMITH read a paper entitled

THE HISTORY AND TREATMENT OF THIRTY CASES OF DIPHTHERIA.

The great mortality from diphtheria was shown by figures obtained at the Board of Health for this city, from which it appeared that out of an average of about 2500 cases yearly for several years past there had been a mortality of nearly fifty per cent., the rate of mortality varying slightly from year to year. In order to test the value of a given method of treatment, Dr. Smith employed that adopted by Dr. Billington, described in a paper read before a Section of the New York Academy of Medicine. It consisted in syringing the nose and pharynx, every two hours, with a solution of chloride of sodium, a teaspoonful to a pint of warm water, and to which Dr. Smith added a teaspoonful of borax. The syringing should be done in a very thorough manner. In addition, the throat was sprayed with a solution of lime-water and carbolic acid, and tincture of chloride of iron and glycerine administered, alternated with chlorate of potash. Of the thirty cases there were five deaths.

A number of papers were read by title, and the Society then adjourned to meet in New York on the third Tuesday in November, 1886.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, November 19, 1885.

THE PRESIDENT, A. JACOBI, M.D., IN THE CHAIR.

A SECTION ON RHINOLOGY AND LARYNGOLOGY.

The Secretary read an application from a number of Fellows for the formation of a Section in Rhinology and

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Laryngology, and, on motion, it was voted that such a section should be established.

DR. NOYES then delivered

THE ANNIVERSARY ADDRESS

before the Academy, the subject of which was "Path-finding in Medicine." In opening, he offered the hearty congratulations of the Academy, as well as his own, to their distinguished colleague, Professor Janeway, who was to have delivered the address, on his recovery from a recent very severe illness, which had prevented him from preparing it. During the past year, he said, he had had the opportunity of becoming personally familiar with much of the scientific work which was at present being done in Europe, and he had especially profited by the proceedings of the great International Medical Congress at Copengagen, and the subsequent Ophthalmological Congress at Heidelburg. From what he had observed, it was his conviction that progress was now to be made in the line of acute, deep, and accurate research. Great triumphs have been won through the agency of scientific physiological and pathological investigation, and clinical observation must now be supplemented by the laboratory. Referring to the achievements of American medical men, he said the wonder was that they accomplished so much with the meagre facilities at their command. Collective investigation is admirable in its way; but, after all, it is merely clinical knowledge, and at the present day we connot rest with clinical observation.

The microscope, he went on to say, is the great agency by which the brilliant results of modern pathology have been obtained, and though the title of his essay may at first seem somewhat grotesque, he thought it not inappropriate, when we consider how many paths through the formerly hopeless jungles of the mysteries of the human economy this instrument has assisted in opening up. Proceeding to illustrate his subject, he spoke particularly of the results accomplishad in pathological research by such men as Virchow, Fleming, and Pasteur. When speaking of microörganisms and the wonderful era in scientific medicine which the discovery of their importance had inaugurated, he mentioned that Rosenbach, in 1884, said that he knew of no less than six distinct microbes which were capable of exciting suppuration in the human body. Having spoken of the triumphs of antiseptic surgery, and the great advances which had been recently made in our knowledge of the physiology of the brain, he gave sketches of the careers of the distinguished Dr. Thomas Young, in whose time nothing was esteemed in medicine which was not of a directly practical nature; of Edward Palmer, the wonderful linguist; of Helmholtz, the inventor of the ophthalmoscope; and of Graefe and Donders, the great ophthalmologists.

Turning again to America, he spoke of the great disadvantages under which our men labor from lack of facilities. Yet a great deal has been accomplished by individual effort, and the reputation of many of our surgeons, especially those who had distinguished themselves in the field of gynecology, is worldwide. No more brilliant instance of a noble and distinguished career in the face of almost insuperable difficulties can be mentioned than that of the lamented Marion Sims.

The investigation of disease is to be prosecuted in two lines; first, the bedside study; and, second, what may be termed, the philosophical study of disease. The problem is to unite these two, so they can go hand in hand; and to-night his plea was for the laboratory. The need of the American profession is urgent; but at length the people seem to be beginning to appreciate to some extent the exigencies of the situation. Having referred to the liberal gifts of Mr. Carnegie and Mr. Vanderbilt to two of the medical colleges, which he said were most timely and hopeful, he spoke of the need of something more—such as institutions in the line of the Johns Hopkins University in Baltimore—which would be suitably equipped and offer facilities, not merely for teaching students, but for instructing teachers, and for the prosecution of the most profound original research. There is no trouble in getting our wealthy people to give liberally for the support of hospitals, dispensaries, and other charitable institutions for the sick; but they should be made to understand that their charity is not complete unless it is in part, at least, devoted to enabling the physician to treat the sick more successfully.

NEW YORK COUNTY MEDICAL ASSOCIATION.

Stated Meeting, November 16, 1885.

THE PRESIDENT, C. A. LEALE, M.D., IN THE CHAIR.

DR. AUSTIN FLINT read a paper on

ELEMENTS OF PROGNOSIS IN BRIGHT'S DISEASE.

He commenced by saying that at present the name Bright's disease has in the popular mind a prophetic import very similar to the judge's sentence in a case of conviction after a trial for a capital offence; being regarded as a hopelessly fatal malady. It is, in fact, worse than a condemnation to execution, for the reason that under the latter circumstances there is a possibility of a reprieve or a pardon, while in this disease there is no chance whatever of an escape from death. This prevailing impression no doubt reflects to a great extent the views of the medical profession, and accords in the main with our present pathological and clinical knowledge. But, at the same time, there are a number of circumstances which may greatly modify this very unfavorable prognosis. Thus, the progress of the disease may, perhaps, be entirely arrested. Again, the disease may be progressive, but the progress made by it be so slow that the patient may continue comparatively free from danger, though some intercurrent affection may, in consequence of the impaired condition of the kidneys, prove fatal. Still further, the chronic disease may continue indefinitely in about the same state, so, under favorable circumstances, may not prove fatal.

The prognosis in Bright's disease, Dr. Flint said, is often of great importance to a patient as regards his business and family affairs, as well as his future health. He then went on to take up a number of points which are to be borne in mind in considering this subject. Acute diffuse, tubular, or desquamative nephritis is not followed by the chronic form of the disease, and, as a rule, is characterized by no renal lesion. The same facts are also true of subacute nephritis, such as follows attacks of scarlet fever, there being no persistent renal lesion, such as is found in the chronic affection. It is to be remembered also that an acute diffuse, tubular, or desqua-

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mative nephritis may be met with as an intercurrent disorder in the course of chronic Bright's disease. Under such circumstances a problem is presented which cannot at once be definitely settled, since it is not certain whether the grave symptoms noted are connected with the chronic trouble, and of the most serious import, or whether they are significant of an acute attack of nephritis which will soon subside and leave the patient in the same general condition as before. When an acute attack of this kind does occur, however, it is very apt to leave the patient with a tendency to recurrent trouble of similar character.

Passing on to the consideration of chronic Bright's disease, he referred to a number of elements of prognosis which are likely to modify it in various ways. In the first place, the disease may remain latent for a long time, and this is a most important fact. He then went on to say that in order that the prognosis may be a comparatively favorable one the kidneys must not be damaged beyond a certain point. Secondly, the important organs of the body, other than the kidneys, must be capable of satisfactorily performing their functions. Thirdly, the laws of health in general must be observed. Now, suppose these conditions to be maintained, and the patient, even if the kidneys are damaged to the extent of one-half, may continue to live in a fair state of health, these organs, under the circumstances, being able to perform their functions sufficiently well for all practical purposes. The situation may be compared to that of a patient with pulmonary emphysema, who can get along very well under ordinary circumstances, but has no reserve power in his lungs. Chronic Bright's disease may exist without discomfort to the patient for years, and then at length the pathological process in the kidneys involves the organs to such an extent that they can no longer perform their functions; or, the accessory conditions may become sufficiently changed to put the patient in jeopardy. Cardiac hypertrophy, it is to be noted, is frequently a result of this affection. But so long as the damage to the kidneys is limited in extent, and the accessory conditions are favorable, the disease will remain latent.

The object of treatment, then, is to prevent the further progress of the disease in the kidneys and to maintain favorable accessory conditions. In view of these facts, it can be readily seen how important it is to make an early diagnosis. The diagnosis made, the essential point is to see that a sufficient elimination of excrementitious products is carried on by the kidneys. Dr. Flint here remarked that practitioners, as a rule, do not properly appreciate the prime necessity of this. Thus, in consultations, in cases of kidney trouble, he had been frequently struck with the fact that the specific gravity had not been taken by the attending physician. It was very easy to find out whether this elimination was sufficient, in a manner that would answer all practical purposes, by simply ascertaining the quantity of urine passed in the twenty-four hours and testing it with the urinometer; and he thought, therefore, that inattention to the adequacy of the renal function is to be attributed to lack of appreciation of the importance of the matter.

If it is found that there is renal adequacy, the indication for diuretics, sudorifics, and hydragogue cathartics is not present. If they are not needed, their employment can only do harm, and they are, therefore, contraindicated. Dr. Flint then related the case of a gentleman, a banker, whom he saw last year. There was an increased quantity of urine, and the first time that he examined it its specific gravity was 1.003; the second time, 1.008. At the first examination the quantity of albumen was small, but at the second it was found still smaller. In neither specimen were there any casts. The average quantity of urine passed in the twenty-four hours was eighty-six ounces, and there was, therefore, no renal inadequacy. The great objects to be aimed at were the prevention of the further progress of the disease in the kidneys and the maintenance of tolerance on the part of the system. Under favorable circumstances the patient would not only continue to live indefinitely, but also enjoy a fair state of health.

He then inquired whether the diminution of excrementitious elimination is a necessary indication of danger of uræmia, and stated that it was not, because vicarious elimination might take place, and tolerance thus be established. The prognosis of uræmic coma in chronic Bright's disease is grave; but every practitioner knows that cases often recover. It may be due to intercurrent acute attacks of nephritis, or to the fact that tolerance may not be established in the system. When there is pulmonary œdema and dyspnœa there is a chance of the patient's surviving; but Dr. Flint stated that he had never yet seen a case of recovery from what is known as renal asthma, where the dyspnœa was not due to any condition of the lungs whatever, but in all probability to the effect of a poison upon the nerve-centres.

He then recapitulated his conclusions as follows:

(1) Acute Bright's disease, as a rule, does not tend to a fatal issue, or to become chronic.

(2) The same is true of subacute nephritis.

(3) Acute or subacute nephritis may occur as an intercurrent affection in the course of chronic Bright's disease.

(4) Susceptibility to the recurrence of such acute or subacute attacks is afterwards to be apprehended.

(5) Chronic Bright's disease may exist indefinitely, provided the kidneys are not damaged to the extent of more than one-half, and the accessory conditions remain favorable.

(6) The adequacy of the function of the kidneys has relation chiefly to the amount of excrementitious elimination carried on.

(7) The danger from the accumulation of excrementitious products is diminished if elimination takes place vicariously.

(8) Uræmic coma occurring in chronic Bright's disease may be due to intercurrent acute nephritis; so that if the impending danger can be averted, the patient may be restored to the same condition as previously. The same may be true of pulmonary œdema occurring in the course of Bright's disease.

(9) Renal asthma is generally, if not always, of fatal import.

DR. GEORGE L. PEABODY said that he could corroborate all the conclusions of the paper, and that he would like to emphasize, perhaps even more strongly than Professor Flint had done, the fact that chronic Bright's disease may continue indefinitely without causing serious trouble in individuals whose condition in life is such that no stress is brought to bear upon any par-

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ticular organ by their mode of living. It had been his experience in quite a number of instances to find, at post-mortem examinations, an advanced stage of Bright's disease in cases where the presence of the affection had never been even suspected. In most of these it had no doubt existed for many years. He also appreciated the importance of looking at the manner in which the kidneys perform their functions. Another element of prognosis is the situation of life in which the patient finds himself. If he can surround himself with all the care that is necessary, he has a chance of living for a number of years; while those who are exposed to bad hygienic conditions and hardships of diet, will be likely to succumb in a comparatively short space of time.

DR. EDWARD G. JANEWAY remarked that the few words which he had to say would be much in the same strain as those of Dr. Peabody. For individuals in the poorer conditions of life, the prognosis of Bright's disease is of the gloomiest kind; but if the patient is so situated that he is able to go to warm climates in winter and take every possible care of himself, he can probably live for a number of years in comfort. He mentioned a case in illustration, of a gentleman who for a time lost flesh rapidly and seemed to be in a bad way generally, but who, by travel and proper care, had been improving very markedly, and had even gained sixty pounds in weight. Thus, again, in the prognosis of Bright's disease, there is an intermittent element to be taken into consideration. For considerable periods at a time albumen and casts may be entirely absent from the urine, and then return again. In this connection he mentioned the case of a lady who at one time had dropsy from Bright's disease, but who is now in a fair state of health and seems likely to remain so. But in both the cases mentioned, Dr. Janeway said, the most careful attention is paid to every circumstance of the patient's condition, and any slight disturbance of the health is at once corrected, if possible. In the first instance the disease has already lasted eleven years, and in the second, five years. He had also one gentleman under observation who was told seventeen years ago that he had incurable Bright's disease. Personally, he had first seen him five years ago, when he had a second attack. The prospect then looked gloomy, but the patient has now to a great extent recovered from this second attack. While too dark a view may be taken of cases of Bright's disease, we must not forget that, on the other hand, too favorable a prognosis may be given. If no albumen or casts are found at the time of examination, it is very desirable that the examination should be repeated. Like Dr. Flint, he thought the quantity and specific gravity of the urine of the greatest importance. Rigidity of the arteries and hypertrophy of the left ventricle of the heart, constitute grave elements in the prognosis.

DR. ISIDOR P. OBERNDORFER spoke of the etiology as possibly modifying the prognosis. Schumacher had called attention to the fact that casts and albumen are sometimes found in the urine in connection with secondary syphilis in cases which had not undergone mercurial treatment, and that when the syphilitic trouble abated the kidneys recovered their normal condition. He had not personally met with an instance of this, but he thought it well that this possible source of origin should be borne in mind, as it would greatly influence the prognosis.

DR. E. M. MOORE, of Rochester, said that he wished to express his gratification in recognizing the progress which has been made in our knowledge of this disease. He would like to ask Dr. Flint one question, the consideration of which had been left out. He had stated that there were many cases of albuminuria, especially those of an acute or subacute character, which existed for some time without any tendency to become chronic; such cases as occurred in connection with scarlet fever or diphtheria, or arose from causes which were not thoroughly understood. What he wanted to know was, how long a time Dr. Flint had known albuminuria to exist as a constant condition, and yet not to assume a chronic form.

DR. FLINT replied that the time was very variable. It was well known that often acute nephritis from scarlet fever ended in recovery. The trouble might last two or three weeks, or four or five months; there was no definite duration.

DR. MOORE went on to say, that it would hardly be reasonable to suppose that such cases could last for a year; but it was his own belief that we have cases of albuminuria which go on for months, which do not get well and finally terminate in loss of life, and yet which at the end of a year have not changed the condition of the kidneys. There would be a great many such cases if they were left uninterfered with. He then related a case which he had under his care during the late war. A young soldier had had albuminuria for several months before he was seen by Dr. Moore, and it lasted a year longer. He took medicine every day during this period, and at the end of twelve months the symptom disappeared. Since then the patient has never had any trouble; but he believed that if he had not been treated, the original trouble would have progressed, and a fatal termination would have been reached. Instead of that, the patient is living and perfectly well to-day. His object in relating the case, he said, was to impress upon his hearers the great length of time which the state of affairs to which he had referred, might exist. In such instances the exact diagnosis is not easy; but he was glad to say that Sir Wm. Gull, whom he had seen during the past summer in London, had entirely agreed with him as to the occurrence of the kind of cases mentioned.

DR. E. S. F. ARNOLD said, in reference to the duration of albuminuria, that he remembered a case, which was also one seen during the late war, in which he gave a certificate of disability to a gentleman who was drafted, because he had had albuminuria for twelve months. This condition lasted altogether for eighteen months, when it entirely disappeared. The patient has had no return of it since, and to-day is apparently in perfect health.

DR. PEABODY said he would like to inquire whether, in these long-continued cases of albuminuria, casts are also found in the urine at the time the albumen is present.

DR. C. S. WOOD said it is a very important question as to whether cases of chronic Bright's disease ever recover. He is one of those who agree with Dr. Moore that cases occur in which albumen and casts are found for a long period in the urine, and then disappear;

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after which the patient goes on to live for years. He then related the case of a gentleman, sixty years of age, a captain in the United States marine corps, who is accustomed to living well. Five years ago, he was pronounced to have Bright's disease by physicians in Chicago; after which time he had casts and albumen in his urine, more or less constantly, until two years ago, when he came under Dr. Wood's observation. At that time the specific gravity of the urine ranged from 1000 to 1.004, and he was much reduced in flesh. After treatment for a year, however, he had gained over forty pounds, and he is now as well as ever. The albumen and casts have disappeared, the specific gravity of the urine is from 1.010 to 1.020, and he has every appearance of perfect health. Dr. Wood said that he ought to add, that in early life the patient had been addicted to the use of intoxicating drinks, but that since he had been troubled with albuminuria he had given them up. The important point is, whether these cases past middle life ever recover. Personally, he believed that this was the case more often than was generally supposed. and that more caution should be employed in giving unfavorable prognosis before the patient's friends.

DR. F. V. WHITE made an inquiry in regard to the renal asthma mentioned in the paper, and Dr. Flint replied that this is a form of dyspnœa which is entirely independent of any trouble in the lungs; being in all probability a cerebral condition, and due to the action of the poison of certain retained excrementitious products upon the nerve-centres. Dr. Flint went on to say that he had met with cases somewhat similar to those mentioned by Drs. Moore and Wood, and the explanation of them, he thought, was this: In the cirrhotic or contracted kidney, it is not uncommon for all the symptoms to disappear for a time; and they may disappear altogether. The kidneys have received a certain amount of damage, but if this does not exceed half of their extent they can perform their functions sufficiently well under favorable conditions. Recovery may then take place in a certain sense; but the kidneys will always remain impaired, just as the lungs do after recovery in tuberculosis.

DR. T. R. VARICK, of Jersey City, said that in the prognosis it is of service to consider whether the trouble is simple and uncomplicated, or secondary to cardiac disease, poisoning by lead or other toxic agent, the excessive use of alcohol, or to some other pathological factor. Then the natural tendency and the selection of termination of Bright's disease must be taken into consideration. Some cases end in apoplectic coma, some in pulmonary œdema, and others in heart-failure, All these various circumstances have an important bearing on the prognosis. In many instances albuminuria is merely a symptom of other conditions besides disease of the kidney, as, for instance, the presence of a gravid uterus. It must not be forgotten that it is not a disease itself. The intermittent character of albuminuria is often obscured. Dr. Varick related a case in which the patient suffered from asthma for a year; but there had never before been any suspicion of kidney trouble. Previously he had had an attack of acute rheumatism. which left him with mitral insufficiency. The quantity of urine passed in the twenty-four hours was down to four ounces, and it was found that it was more than one-half albumen. There were pulmonary œdema and anasarca of the lower extremities. Yet, notwithstanding this discouraging state of affairs, the patient improved under treatment, and is now very much better in every way. It was last spring when the condition was so serious. At times there is a complete absence of albumen from the urine, and then again it will recur, the reason for which Dr. Varick supposed to be in the continuance of the cardiac trouble.

DR. HENRY F. QUACKENBOS said that ten years ago a patient of his contracted disease of the kidneys. In six weeks after the discovery of the trouble the condition became so alarming that he called in Professor Flint in consultation. The patient was confined to bed with the most extensive œdema, and looked like a piece of wax. Dr. Flint saw him four times, and expressed his approval of the treatment which had been adopted. The trouble gradually subsided, the albumen disappearing from the urine within four weeks, and to-day the patient is entirely well. Dr. Quackenbos also related another somewhat similar case.

DR. JANEWAY mentioned a case in which there was Cheyne-Stokes respiration, which is usually regarded as of fatal import. Yet the patient had no less than four attacks; dying in the last. He had had Bright's asthma five years before. He doubted whether this phenomenon is simply of nervous character; and thought that it is, in some manner at least, due to the effect of a poison on the red corpuscles of the blood which acts somewhat in the manner of carbonic oxide.

Dr. Janeway then exhibited some

PATHOLOGICAL SPECIMENS

taken from the body of a woman who was admitted to the hospital under the supposition that she was suffering from puerperal mania. She had been confined three weeks before admission, and fourteen hours after the birth of her child fever had set in, which continued up to the time of her death. It was learned that she had had an attack of malarial fever two months before confinement. The autopsy revealed the characteristic lesions of typhoid fever in the intestines, and also marked pigmentation of the liver and spleen from the recent malarial trouble. During her stay in the hospital the patient exhibited great irregularities in temperature, and she died on the twenty-first day from the commencement of the attack.

It might have been supposed that this was a case of typho-malarial fever; but, from the light thrown on it by the history and the autopsy, there could be little doubt that it was one of true typhoid. The history showed that the malarial poisoning, of which the marked pigmentation of the liver and spleen afforded plain evidence, had occurred two months before the beginning of the typhoid fever. In connection with the latter there were some bronchitis and broncho-pneumonia, as shown by the post-mortem. The six or seven patches in the small intestine were ulcerated out, and a few typhoid bacilli were also found in the intestinal tract. Dr. Janeway had met with two other cases (in one of which an autopsy was made, and in the other not) in which there was typhoid fever, rather than puerperal sepsis, following confinement. The pigmented spleen, which was of a dark chocolate hue, and also greatly enlarged, and the small intestine, showing the typhoid lesions, were exhibited.

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CORRESPONDENCE.

ŒDEMA OF THE LUNGS.

To the Editor of THE MEDICAL NEWS.

SIR: Your editorial, on œdema of the lungs, in THE MEDICAL NEWS of October 31, in which you review the status of the discussion on the mode of production of non-inflammatory œdema, induces me to communicate to you the following notes of a case that but lately terminated fatally in my hands, which, I think, illustrates the correctness of Welch's theory:

A woman, aged 61, good family history, a well-to-do farmer's wife, of spare build, chest not barrel-shaped, had been suffering for thirty-seven years from chronic bronchial catarrh. Mitral and aortic insufficiency were recognized by me when first seen more than ten years ago. While I have been her medical adviser she has been frequently treated for acute exacerbations of the bronchial catarrh, for pulmonary congestion, at times amounting to inflammation, and for hepatic torpor, which latter would be especially troublesome in summer and fall. During the past three years she has been remarkably healthy and had little trouble with cough. One year ago she came to me with considerable œdema pedum. This was promptly relieved by Guy's pills.

On August 26th last she presented herself at my office with feet slightly swelled, and complaining that her stomach felt swelled, especially after meals. The pulse was 100–110; the respiration was slightly increased, 24–28. September 18, there was increased cough, numerous dry râles over both lungs; pulse 100, regular, weak; no increase in the dropsy. She comes to office, a distance of three miles, and spends several hours in town.

September 27.—Found patient in bed; great cyanosis; face and hands steel-gray; veins greatly distended; jugulars pulsating heavily; sensorium dulled; no dyspnœa, but rapid and extremely shallow respiration, 48; strong cough; raw, small, soft râles exceedingly numerous over both lungs; no pericarditis; no pleuritis; no pneumonia; slight œdema pedum; abdomen 31¼ in.; her normal girth being about 28 in.; urine somewhat diminished in quantity and high colored, contains a trace of albumen; face puffy; the cardiac dulness is increased; the heart's action is peculiar; the pulse is hard, throbbing, regular, equals 48; the heart beats are heavy, thumping, regular, equal 48; the first mitral sound is clear, the second reduplicated; no murmur; the reduplication is heard over all four valves, but especially clearly over the mitral, aortic, and pulmonary. After four or five minutes, without any cause from the patient, and without any warning, the pulse becomes low, hard, 96, but remains equal and regular. The heart's impulse is still strong, its action is regular, equals 96. Now there is no trace of reduplication, but a very marked mitral and aortic regurgitant murmur. Again, after a few minutes, just as suddenly as before, the pulse falls to 48. When the pulse is 48 I imagine that I can make out just a shadow of a beat between each of the heavy throbs; no trace of a corresponding heart-beat can be made out. Here the beat is 48, and the beat of the sounds is reduplicated.

October 3.—More obtunded sensorium; speech slow; recollection bad; forgets what she wants to say; hearing less acute; swallowing difficult, clearly owing to tardy nerve action. Respiration as before; heart and pulse as before, only made fuller; increase in cough and in number of râles; lungs are clearly becoming filled up rapidly; very slight increase in ascitis; no pericardiac or pleuritic effusion; no pulmonary solidification; at rare intervals she bring up a little, thin, mucoid sputa. The respiration is regular, easy, only extremely shallow. There is not now, nor ever has been, any increase in temperature.

4th.—Pulse stronger to-day, but otherwise remains unchanged; is taking digitalis and arsenic; increased œdema pulmonum; increased cyanosis; increased cerebral obtuseness. The patient's vital fire is being slowly but surely smothered.

5th.—Under digitalis and carbonate of ammonium the pulse has become 80–88; has lost the changing from a slow to a fast pulse; some of the pulse and heart beats are, however, irregular as to time, rhythm, and celerity. Œdema pulmonum seems somewhat improved; respirations being 40, regular, easy; but there have been several mild dyspnœic attacks. Mental dulness, bordering on stupor; cyanosis increased, face and hands deep gray-blue; veins of face, neck, hands, and chest stand out in heavy cords; heaving pulsation in the jugulars. Death occurred October 6, at 11 P. M.

Death in this case was clearly due to pulmonary œdema. There was to the last but a moderate effusion into the peritoneal cavity, and none at all into the pericardial and pleural sacs. There was no recognizable pulmonary hepatization; *there was no new bronchial catarrh; on the contrary, from the first an absence of any but the mildest symptoms common to chronic bronchitis.* The albumen amounted to but a trace, and the urinary secretion, though less than normal, was not greatly diminished. The rapidity with which the end came on, only six weeks after the first signs of œdema pedum were observed, and the manner of death, counterfeiting that of death in pneumonia when œdema pulmonum supervenes, distinctly point to the same cause. This œdema, I think, cannot but have originated in a weakened left heart.

Trusting that this report may be of some interest, I remain very respectfully yours,

O. T. SCHULTZ.

November 3, 1885.

A CASE OF FRACTURE OF THE CORACOID.

IN THE MEDICAL NEWS for November 21, 1885, appeared an interesting article by Dr. Johnson, of Baltimore, upon fracture of the coracoid process. I am very certain that I have had a case of this kind, but have hesitated to report it, although notes were taken at the time for that purpose.

I was called November 5, 1881, to see Mr. J. McC., a stout farmer, aged about fifty-six. It was butchering day; and while his clothes were wet with blood, and he was somewhat under the influence of liquor, he went into a stall to feed a colt. The colt became frightened, threw him down, and struck him many times with his forefeet as he lay. I found him badly brused. Examination showed no dislocation or fracture except that, by chance, crepitus was noticed at a point in front of the right shoulder. The head of the humerus was in

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place, and every motion could be made passively. The spine of the scapula and the clavicle were traced, as carefully as possible, and appeared uninjured. The crepitus and point of special tenderness were very strictly localized at a point internal to the shoulder-joint and below the clavicle. I could think of nothing there to crepitate except the coracoid, and diagnosed its fracture. It was dressed like a broken clavicle, omitting the axillary pad.

Upon looking up this form of fracture in Erichsen's *Surgery* I could find no distinctive symptoms of it—and the statement was made that only ten or twelve cases were on record. So, the next day, I requested Dr. J. C. Nelson, an experienced surgeon, to see the case with me, and we made a careful examination of the joint. The conclusion was that the crepitus, distinct, though difficult to obtain, the localized tenderness, the peculiar situation of the injury, and the absence of any other symptom allowed of no other diagnosis. The patient made a very good recovery.

I see no reason why the coracoid should not be broken by direct violence when subjected to it. The accident may easily escape notice, which would make little difference in treatment. But if some pointed object should strike forcibly the point below the clavicle and just internal to the head of the humerus, there would seem to be no reason why fracture of the coracoid should not be produced.

F. W. HIGGINS.

CHEMUNG, N. Y.

NEWS ITEMS.

WASHINGTON.

(*From our Special Correspondent.*)

SANITARY CONDITION OF FOREIGN PORTS. — The United States Consul at Gibraltar, under date of October 9, 1885, reports to the Department of State that he regrets to have to report that, after the lapse of twelve clear days, three fresh cases of cholera have occurred at that port within the past forty-eight hours, and that the first case has already proved fatal at the date of his dispatch.

He says that the authorities of Gibraltar, treating the cases as sporadic, have continued, since the 30th ultimo, to issue clean bills of health to vessels clearing from the port departments, but that it does not alter the course of proceedings on the part of the Consulate, which still continues issuing foul bills of health, or endorsements to the same effect, to clearances for ports in the United States, and will continue to do so, as long as any case of cholera prevails there, or at the neighboring Spanish lines, where the malady seems to be decreasing.

The United States Consul at Catania, Italy, reports, under date of October 17, the sanitary condition of that port for the month of September, 1885. He says he is unable to make weekly reports, as the statistics of the Board of Health are prepared monthly, and not for each week, and he is unable to get their report until the middle of the month following. The prevailing diseases are diarrhœa and dysentery during the summer months. The report for September shows an improved condition of the health of the city. His report for August showed the number of deaths to be 383, while in September there were 282, from the following causes:

Smallpox, 1; typhoid fever, 22; dysentery, 37; apoplexy, 9; eclampsia 9; bronchial affections, 10; pneumonia, 8; tubercular consumption, 11; heart disease, 5; diseases of indigestion, 22; diseases of the liver, 8; diarrhœa, 100; suicide, 1; homicide, 1; other diseases, 38; total, 282. The total of deaths gives a ratio of $2\frac{88}{100}$ to each 1000 inhabitants. The case of smallpox was that of a Greek sailor, who died aboard ship in the harbor. There had been no case of cholera or other contagious disease except the one mentioned. He says that the people, who are generally ignorant and superstitious, were greatly alarmed on account of the cholera in Palermo. Those who were able fled to the slopes of Ætna. Riots were apprehended, but an additional force of troops sent by the Government maintained order. The sanitary condition of the city had somewhat improved since his last report. Disinfectants were scattered in various streets. The main streets were kept very clean, but the side streets and alleys were still in filthy condition. The drainage is very poor, and is confined principally to the main streets. The homes of the poorer classes are densely crowded. In case of an epidemic there, such as cholera, the mortality of the city would be very great.

CHICAGO.

(*From Our Special Correspondent.*)

CHARLES GILMAN SMITH, M.D. (Medical Department, University of Pennsylvania, 1851), has been elected orator for 1886, by the Alumni Association of the Medical Department, University of Pennsylvania.

COUNTY PROVISION FOR THE INSANE.—At a meeting of the Chicago Medical Society, held October 19, 1885, a committee was appointed to investigate the condition of the Cook County Insane Asylum. On Saturday evening, October 24th, a meeting of citizens was called to discuss the present condition and alleged mismanagement of the same institution. These two committees have conferred together, and determined upon a definite line of investigation. A great mass of evidence has been secured, and a radical change in the management of the Asylum is anticipated.

During the past two years the 1163 Cook County Insane Asylum patients cost $358,039.

CHICAGO GYNECOLOGICAL SOCIETY.—At the annual meeting of the Chicago Gynecological Society, held October 16, 1885, the following officers were elected for the year 1885-86:

President.—Dr. Daniel T[illegible]son.

Vice-Presidents.—Drs. Henry T. Byford, and Charles Warrington Earle.

Secretary and Treasurer.—Dr. Edward Warren Sawyer.

Editor.—Dr. W. W. Jaggard.

STUDENTS WITH THE MEDICAL COLLEGES.—The total number of matriculates at Rush is 406; at the Chicago Medical College, 120; and at the College of Physicians and Surgeons, 160.

COLLEGE OF PHYSICIANS AND SURGEONS.—The following changes have been made in the Faculty:

Mr. C. B. Gibson has been appointed to the Chair of Inorganic Chemistry; Dr. C. A. Kelsey to the Chair of General Pathology and Pathological Anatomy; Dr. F.

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B. Earle, Curator of the Museum; Dr. B. W. Rogers, Assistant Demonstrator of Anatomy.

CHICAGO POLYCLINIC.—On Thursday evening, November 20th, a number of physicians met in the Club-room of the Palmer House and formed the "Chicago Polyclinic Society." The following officers were elected:

President.—Dr. Charles T. Parkes.

Vice-President.—Dr. W. F. Coleman.

Secretary.—Dr. E. C. Dudley.

The prominent physicians of the city and region are interested in the movement. The plan is to establish a polyclinic similar to the institutions in Vienna and Berlin.

COOK COUNTY HOSPITAL.—The County Hospital is a magnificent edifice, constructed in accordance with recent principles of hospital architecture. There are 550 beds. The material, especially in the wards for acute surgery, is large, varied, and valuable for class instruction. Internes are chosen by competitive examination, and nurses are supplied by the Chicago Training School, one of the most efficient institutions of its kind in the country. The members of the visiting staff are elected by the Hospital Committee of the County Commissioners. Abuses in the management of the institution have existed for a long period of time. It is difficult to understand how the duties of the executive officers can be faithfully performed, in view of the fact that the institution is an infamous political machine. The citizens of Chicago are being roused from their apathy, and a revolution is anticipated, which may rival the change in Blockley under the influence of the Committee of One Hundred. During the past year 329 pregnant women have been received into the hospital; 258 births have occurred, with only one maternal death. The freedom from puerperal disease is due exclusively to the zeal and intelligence of the internes, who have taken a special interest in this department.

MONTREAL.

(From our Special Correspondent.)

THE SMALLPOX EPIDEMIC.—Smallpox is rapidly diminishing, principally because it is burning itself out, and partly, owing to the vigorous efforts of the Board of Health, during the last month, in enforcing either removal to hospital or isolation. A special court has been instituted for the rapid trial of smallpox cases, and there are daily convictions of persons who decline hospital accommodation or isolation. Several physicians have been lately fined for failing to report cases of smallpox under their care, although the daily death-rate in the city and its suburbs has fallen from 50–60 to 10–15; yet the disease is rapidly spreading through the country districts, and in many of the small towns and villages has reached alarming proportions. Montepello and other places refuse to enforce vaccination and isolation, but in most of the country municipalities boards of health, more or less efficient, are established, and vaccination is being enforced. The opposition to vaccination outside the great cities is not very violent, though many of the country doctors having been educated by antivaccinationists are not ardent disciples of Jenner; still, being unsupported, they are falling into line.

The public demonstrations held in various parts of the country, condemning the Government for the execution of the rebel, Louis Riel, will, it is thought, have at least one effect, viz., the spread of the French Canadian national disease, *picotte*.

ANOTHER RESIGNATION FROM THE INTERNATIONAL CONGRESS.—It has nowhere been mentioned in the medical press that another of the Vice-Presidents of the Congress has resigned, yet it is over a month since Dr. R. Palmer Howard, Dean of the McGill Medical Faculty, sent in his letter of resignation. Dr. Howard was written to and asked to say whether he accepted or declined his appointment as Vice-President, and he felt bound to decline, not being in sympathy with the action of the present Committee. The Canadian members have been placed in an awkward position in regard to the Congress, being to a certain extent foreigners, and being asked to join the organization merely out of courtesy, they did not feel disposed to join in the family quarrel. They, although altogether disapproving of the ousting of the old Committee, thought it better to do nothing, though most of them, if they were asked to reply to the circular advising them of their reappointment, would decline to have anything to do with the Congress as at present constituted.

ANNUAL REPORT OF THE SURGEON-GENERAL OF THE ARMY.—The Surgeon-General, in his annual report, states that the general health of the Army has been good; the rate of admission to sick report being decidedly lower than that for the previous year and preceding decade, while the death-rate from all causes shows an equally marked reduction.

Admissions for disease were less frequent, the rate being fully one-fifth lower than for the previous year.

Among the interesting additions to the Museum during the year may be mentioned, a model of the course of the fibres in the human brain, made under direction of Professor Aeby by F. Buechi, of Berne, Switzerland; a set of anthropometric apparatus and instruments similar to that shown in the Health Exhibition in London, in 1884, and devised by Mr. Francis Galton; a series of colored plaster casts of frozen sections of the human body, as made by Professors Braune, His, and Rauber, of Leipsic; and a series of microscopes illustrating the history of the origin and development of this instrument.

During the year there were added to the Library 6481 volumes and 9420 pamphlets. Of these, 456 volumes and 5706 pamphlets were obtained by presentation or exchange, the remainder being obtained by purchase.

Among the additions were 989 volumes of journals and 211 volumes of transactions. Of the pamphlets, 1941 were medical theses. There are now in the Library:

Volumes of medical journals	23,039
" " " transactions	3,440
" " bound theses	1,385
" " " pamphlets	1,213
" " other medical books	43,142
Total volumes	72,219

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Medical theses, unbound	40,524
Other medical pamphlets	55,399
Total theses and pamphlets . .	93,923

All new medical publications are now promptly received by the Library, and its use by physicians in all parts of the country is steadily increasing.

Volume VI. of the *Index-Catalogue*, including from "Heastie" to "Insfeldt," forming a volume of 1051 pages, has been printed and the edition distributed. The preparation of the manuscript of Volume VII. is well advanced, and the first part of it is now going to press.

The manuscript of the third medical volume of *The Medical and Surgical History of the War*, and the last of the series, is now well advanced toward completion; its earlier chapters are in the hands of the printer. The work will probably be ready for issue during the coming winter.

The plans for the fireproof building for Medical Records and for the Army Medical Museum and Library have been approved by the Commission, and after due advertisement the contract for constructing the building has been awarded to Messrs. Bright & Humphrey, of Washington, D. C.

The original estimate of the cost of the construction of this building was $250,000, and as only $200,000 were appropriated, some changes in the original plan were necessary. These changes make the building a very plain and simple one, and somewhat reduce its size from that originally proposed; but it is believed they have not in any way impaired its security, and that it will afford space sufficient for all absolute necessities for some years to come.

Estimates have been forwarded for the necessary shelving, cases, etc., to fit up the building for its purpose; and it is hoped that it may be completed, and the invaluable collections for which it is destined to provide removed from their present dangerous situation, and safely stored in it by the spring of 1887.

SANITARY INSPECTION DISCONTINUED.—Owing to the decrease of cholera, instructions have been given to discontinue the services of most of the sanitary inspectors of the Marine-Hospital Service attached to the United States Consulates in Europe. The inspectors at Mediterranean and Cuban ports will be retained for the present.

PRIVILEGED COMMUNICATIONS.—A physician was fined at Oswego, last week, $250, with the alternative of six months' imprisonment, for contempt of court in refusing to testify in a criminal case. He pleaded, unwillingly, as a defence that his testimony would involve the disclosure of professional secrets.

THE HEALTH OF CANNES.—In the presence of the numerous demands for information which are addressed to them respecting the sanitary state of Cannes, the different foreign consuls resident there have felt that they ought, in order to be of service to their countrymen, have recourse to publicity to let them know that Cannes has, during the summer of 1885, been entirely free from cholera, that the medical men have not certified to a single case of this malady. The general state of the public health is, and has not ceased to be, excellent. Travellers to Cannes, by Paris, Lyons, and Marseilles, are not subjected to any kind of disinfection, on any point of their journey.

OPHTHALMOLOGY IN VIENNA.—DR. ERNEST FUCHS, the newly appointed professor of ophthalmic surgery in Vienna, in his opening lecture, gave an interesting account of the history of ophthalmological teaching in that university. In the last century, the surgery of eye diseases was practically resigned by the members of the regular profession into the hands of charlatans. In the university there was no chair assigned to the subject and the only instruction which was given was contained in a few lectures delivered by the professors of surgery and anatomy. This state of things had lasted a long time, when one of the Empress Maria Theresa's court ladies, the Countess Taroucca, became blind. The medical men consulted were unable to agree as to the nature or treatment of the affection, some diagnosing cataract, and advising an operation, whilst others pronounced it to be amaurosis, and incurable. In order to solve the difficulty, Dr. Wenzel was summoned from Paris. He recognized the affection as cataract of an unusually dark color, and operated successfully. As Dr. Wenzel's journey was a very costly affair, an arrangement was made to utilize it as far as possible; and so, during the time he remained in Vienna, he instructed three young medical men in eye diseases. The most prominent of these was Barth, then professor of anatomy and physiology, who was afterwards appointed to carry on the instruction in ophthalmology. He chose as his assistant Joseph Beer. It was not long before Beer surpassed his master, ultimately becoming the most renowned ophthalmologist of his time. He was, however, not fully installed as professor until 1818, when the first chair of ophthalmology was created, at which time he was 55 years of age. One of Beer's assistants was Friedrich Jäger, from Germany. He won his master's esteem, and married his daughter. He was not only a brilliant operator, but a cultured man of the world, and was Prince Metternich's private physician. His son, Edward Jäger, the lecturer's immediate predecessor, is universally known in connection with ophthalmoscopy. —*British Medical Journal*, November 21, 1885.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY FOR THE WEEK ENDING NOVEMBER 28, 1885.

MARMION, R. A., *Surgeon*.—Detached from Marine Barracks, Washington, D.C., December 7, and wait orders.

MOORE, A. M., *Surgeon*.—Ordered to Marine Barracks, Washington, D.C., December 7, 1885.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, FROM NOVEMBER 24 TO NOVEMBER 30, 1885.

WINNE, C. K., *Captain and Assistant Surgeon*.—Assigned to duty as Post Surgeon Benicia Barracks, and Attending Surgeon at Benicia Arsenal, California.—*S. O. 119, Department of California*, November 20, 1885.

TAYLOR, ARTHUR W., *Captain and Assistant Surgeon*.—Granted leave of absence for one month, to take effect December 5, 1885.—*S. O. 116, Department of the Platte*, November 20, 1885

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLVII. SATURDAY, DECEMBER 12, 1885. No. 24.

ORIGINAL LECTURES.

ON THE TREATMENT OF PAINFUL MENSTRUATION AND STERILITY FROM FLEXION.

A Clinical Lecture, delivered at the Hospital of the University of Pennsylvania.

BY WILLIAM GOODELL, M.D.,
PROFESSOR OF GYNECOLOGY IN THE UNIVERSITY OF PENNSYLVANIA.

GENTLEMEN: While our patient is getting her ether in the waiting-room, let me give you her history. It is a history which will soon be to you as familiar as household words, whether you practise in cities or at cross-roads. She is a young woman who has been married eight years; but she has never conceived, and since puberty has suffered from very painful menstruation. Since her marriage, her periods, as is usual in such cases, have been getting more and more painful. At present, not only are they unbearable, needing large doses of opium, but she is yearning to become a mother.

Now, what lesions shall we probably discover in this case? Ten to one, a womb bent forward on itself, and a narrow uterine canal. True, the displacement may turn out to be a retroflexion, but this is a lesion almost peculiar to the childbearing womb, while anteflexion is the natural condition of the nulliparous womb. Here, let me disabuse your minds of a prevalent error, viz., that anteflexion in itself is a pathological condition. Many text-books speak of this flexion as a lesion, and exhibit many forms of pessaries devised to rectify this so-called displacement. But in the great majority of cases neither anteflexion, nor, for the matter of that, anteversion, is pathological. In almost every unmarried or barren woman you will find the womb either bent forward or tilted forward, and resting on the bladder; for this in varying degrees is its natural position. The mistake made, is in attributing to this natural position of the womb the various forms of pelvic trouble, especially that of irritability of the bladder, to which women are so liable. But the kinship between the brain and bladder is a remarkably close one. This has lately been studied by two Italian physiologists, Mosso and Pellacani, who go so far as to contend that "every mental act in man is accompanied by a contraction of the bladder." The irritability of the bladder is then one of the first symptoms of loss of nerve control. Everybody is liable to it. You, on examination day, will be annoyed by it. Many a lawyer before pleading an important case, and many a clergyman just before delivering a discourse, is compelled from sheer nervousness to empty the bladder. So it is with the lower animals, which, when frightened, micturate involuntarily. A nervous bladder is then one of the earliest phenomena of nervousness. Now, a hysterical girl, or a woman whose nervous system has collapsed under the strain of domestic cares, consults a physician for such symptoms of nerve prostration as wakefulness, utter weariness, a bearing down feeling, backache, and perhaps, above all, an irritable bladder. Upon making a digital examination, he, of course, finds the fundus of the womb resting on the bladder, and at once jumps to the conclusion that the whole trouble is due to the pressure of the womb on the bladder, viz., to the existing anteflexion or to the anteversion, as the case may be. He now makes local applications and racks his brain to adapt or to devise some pessary capable of overcoming the supposed difficulty, forgetting that the upward, or shoring, pressure of the pessary on the bladder must be greater than the corresponding downward, or gravity, pressure of the womb. There is, in fact, no pessary but the dangerous stem-pessary which can meet the end without pressing upon a fold, or double thickness, of the bladder. But, very fortunately, anteflexion is not often pathological. It is certainly not pathological in the foregoing instances; for the symptoms, especially the vesical ones, are not due to the pressure of the womb upon the bladder, but to sheer nervousness, or nerve prostration, which is the thing to be treated, and not the womb. There are exceptions to this rule, but not many; for instance, a womb, heavy from subinvolution or from the presence of a fibroid, may make uncomfortable pressure on the bladder.

If anteflexion is the natural position and condition of the womb, when is it pathological? It is pathological whenever it is the cause of dysmenorrhœa or of sterility. Usually dysmenorrhœa and sterility are associated, but occasionally the latter is the only symptom; for it is evident that the crooked womb can more readily expel fluid contained within it, than admit a fluid outside of it. The phenomena of a typical case of dysmenorrhœa from anteflexion or from retroflexion, are as follows: At the outset of menstruation, the first few drops are somewhat painful. The pain then increases in severity until, reaching its acme, a slight gush of menstrual fluid takes place, followed by a lull in the sufferings. The pain then gradually increases until it culminates in another gush. The meaning of this is, that the bend in the womb imprisons the menstrual fluid, which goes on collecting in the cavity until the swelling up of the womb straightens out the bent portion, dilates the narrow canal, and allows the pent-up contents to escape, just as the coils of a hose first swell and then straighten out before the water can flow through them. Relief from pain lasts until the fluid begins again to collect. This is called stenosis from angulation.

Sometimes a girl has little or no pain at her menstrual periods. She marries, does not conceive, and by and by dysmenorrhœa sets in, which goes on increasing. What is the explanation of this? It means that the flexed canal of the womb was originally just large enough to permit the slow escape of the menstrual fluid; but that the congestions from sexual intercourse have caused a thickening of the lining membrane of this canal, which has narrowed its calibre. Then again, the uterine efforts to force out the pent-up fluid cause the various tissues

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of the womb to hypertrophy. We see this also in unmarried women, the dysmenorrhœa increasing with their age. Nature intends that the periodical congestions of the womb should be interrupted by pregnancy and lactation, and without these interruptions the mucous lining of the womb is liable to thicken, and by its thickness to narrow the canal. If then to these menstrual congestions be added the sexual congestions of marriage, this hypertrophy is greatly increased, and the barren wife suffers more than the old maid.

But here comes our patient. Let me examine her. Sure enough, she has an anteflexion, for through the anterior wall of the vagina I feel the body of the womb resting upon the bladder. The cervix is long and conical; the os externum very small.

I pass the sound. It stops, as you see, at the internal os,—viz., at the beginning of the bend,—and I cannot coax it in any further. By introducing the speculum, and straightening the womb by traction made with a tenaculum, the sound now goes in, but even yet with difficulty. It gives a measurement of nearly three and a half inches, which is a large measurement for a young woman who has not borne any children. This hypertrophy is owing partly to such repeated congestions as I have just described, and partly to the muscular effort made by the womb to extrude not only the menstrual fluid but its mucous secretions.

Now, what is the remedy for this condition? For a number of years the operation most in vogue was the cutting, or bloody operation of Sims. By it the canal is enlarged by incisions. But the objections to this plan are: that it is a dangerous operation, having caused the death of many patients through peritonitis; that it is not a very successful operation, as the incisions are liable to heal up and the dysmenorrhœa to return; and, finally, that it always deforms the cervix, and sometimes causes lesions analogous to those resulting from a natural laceration during labor. I shall not, therefore, burden you with the details of this operation, which fortunately is falling into disuse. Then again the cervix is, at the present day, often dilated by tents or by graduated bougies; but the former is dangerous, and both are painful, tedious, and unsatisfactory.

The operation which I can recommend to you most highly, and one which I shall now perform on our patient, is that of forcible dilatation. The instruments which I use are two modified Ellinger dilators of different sizes, made under my supervision by Messrs. J. H. Gemrig & Son, of this city. Ellinger's model is the best on account of the parallel action of the blades, which dilate the whole track of the canal uniformly. The smaller of these dilators has slender blades, and it pilots the way for the other, which is more powerful, having blades that do not feather. The lighter instrument needs only a ratchet in the handles, but the stronger one should have a screw by which the handles are brought together. Lest the beak should hit the fundus uteri and seriously injure it when these instruments are opened, their blades are made no longer than two inches, and are armed with a shoulder which prevents further penetration. The larger instrument opens to an outside width of one and a half inches, and its blades are roughened, or corrugated, by shallow grooves in order to keep them from slipping out. This dilator has also a graduated arc in the handles by which the divergence of the blades can be read off.

In a case of dysmenorrhœa, or in one of sterility from flexion or from stenosis, as in the woman before us, my mode of performing the operation of dilatation is as follows: The patient is thoroughly anæsthetized, and a suppository containing one grain of aqueous extract of opium is slipped into the rectum. She is then turned on her back, and drawn to the edge of the bed, each knee being supported by an assistant. The light must be good, so that the operator can see what he is about. My bivalve speculum being now introduced, the vagina is well swabbed out with a five per cent. solution of carbolic acid. By the aid of a strong uterine tenaculum, the cervix is steadied and the smaller dilator is introduced as far as it will go. Upon gently stretching open that portion of the canal which it occupies, the stricture above so yields that, when the instrument is closed, it can be made to pass up higher. Thus by repetitions of this manœuvre, little by little, in a few minutes' time a cervical canal is tunnelled out which before could not admit the finest probe. Should the os externum be a mere pinhole, or it be too small to admit the beak of the dilator, it is enlarged by the closed blades of a pair of straight scissors, which are introduced with a boring motion. As soon as the cavity of the womb is gained, the handles are gradually brought together, and allowed to stay so for one or two minutes. The small dilator being now withdrawn, the larger one is introduced and the handles are then slowly screwed toward one another. If the flexion be very marked, this instrument after being withdrawn, should be reintroduced with its curve reversed to that of the flexion, and the final dilatation then made. But in doing this the operator must take good care not to rotate the womb on its axis, and not to mistake the twist for a reversal of flexion. The ether is now withheld and the dilator kept *in situ* some fifteen minutes, when it is closed, removed, and the vagina well syringed out with the same solution of carbolic acid. Occasionally a slight flow of blood will last for several days after the operation, simulating the menstrual flux. Often the flux is precipitated or it is renewed, if the operation follows or precedes it too soon. The best time for dilatation is, therefore, midway between two monthly periods. Were the case before us a retroflexion, I should, after the dilatation, put in a pessary long enough to span the angle of flexure. This never fails to straighten out the womb, and in time to restore it.

Although this operation looks like rough work when compared with the neat, but most dangerous cutting one, our patient will probably need not more than two suppositories, and she will complain merely of soreness for one or two days. To forestall any tendency to metritis, she will be kept in bed until all tenderness has disappeared. Pain will be met by rectal suppositories of opium, and by large poultices laid over the abdomen. From this operation I have seen only slight pelvic disturbance, but it has always been readily controlled and has not given alarm. In one case of dilatation complicated by a fibroid of the womb, a uterine colic lasted for several days, but it was finally subdued by asafœtida in large doses, and never became inflammatory. Should the temperature rise and symptoms of pelvic inflamma-

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tion appear, the ice-bag should replace the warm poultice. But I have not yet met with a temperature high enough to need this energetic mode of treatment.

In the great majority of cases I dilate the canal not to the fullest extent of the larger instrument, but, as in the case before us, to one and a quarter inches. Sometimes, in an infantile cervix, which does not readily yield and might give way, the handles are not screwed closer than three-quarters of an inch or an inch; but this is exceptional. Tearing of the cervix has happened in four of my cases; in two from the sudden slipping out of the beak, and in two from sheer stretching. Three of these were unmarried and the cervix in each was split posteriorly, nearly half-way to the vaginal junction. The rent looked exactly like the incision of the cutting, or bloody, operation, but it was only half the length of the latter. As it kept the os externum patulous and could not do any mischief, I did not sew it up. The fourth case was that of a multipara, whose uterine canal had been nearly closed up by applications of silver nitrate, made by her physician with the view of curing what he supposed was an "ulceration of the os," but which was a bilateral laceration. The tissues, rendered cicatricial and brittle by the caustic, were torn by the dilator for about half an inch on the right side. Here the hemorrhage was free enough to need styptic applications and a light tampon. I could have stopped it by wire sutures, but this was not done, as it would have defeated the object of the operation.

For slight dilatations, such as for the office treatment of anteflexions and of stenosis, or for the introduction of the curette, or of the applicator armed with cotton, the more delicate instrument is quite strong enough, and an anæsthetic is not needed. I also use it in women who object to taking ether; but the operation is then very painful and it has to be repeated several times, while the results are by no means so good as when the canal has been dilated by the larger instrument, and under ether. Occasionally in virgins, in order to save the hymen, I have dispensed with the speculum and have dilated with the more slender instrument, passing it in along my finger; but this cannot always be done, and it is usually unsatisfactory. I was led to this, because on one occasion I was asked to give a certificate of virginity—in other words, to write and sign a paper stating that before the operation the hymen was intact. I also had to do this in the case of an unmarried woman, whose perineum, in spite of lateral cuts, was badly torn in my efforts to deliver with the obstetric forceps a very large fibroid tumor of the womb. When she returned home, the village crones got up such a buzz of scandal, that I had to go to her defence. Sometimes in a very sharply anteflexed womb, the dilator cannot be made to pass the os internum. This difficulty is overcome by first passing in a surgeon's probe, and then, along it as a guide, the dilator.

After a forcible dilatation under ether, the cervical canal rarely returns to its former bent or former narrow condition. Since lateral extension of elastic bodies antagonizes their length, the cervix shortens and widens, and the exudation provisionally thrown out by the submucous lesions sustained by the dilated part, serves still further to thicken and stiffen its tissues. In other words, the stem-like neck of the pear-shaped womb is shortened, widened, strengthened, and straightened. Hence for straightening out anteflexed or congenitally retroflexed wombs, and for dilating and shortening the canal in cases of sterility or of dysmenorrhœa arising from stenosis or from a conical cervix, the dilator will be found a most efficient instrument. Sometimes in sharply bent wombs, I put in a stem-pessary immediately after the dilatation. In retroflexions I always put in a pessary long enough to span the angle of the flexion, so as to straighten the womb, by making pressure on the fundus. To this occasionally a stem-pessary is added.

In its results this operation is not an infallible one. I have thrice been obliged to repeat the dilatation, and would like to do so in several cases did the women permit. In a very few cases I have been forced, as a final resort, to nick a pinhole os externum. But I had not then learned how far I could safely stretch open the uterine canal, and the operation of dilatation was, therefore, not so efficiently performed by me as it is now through a larger and riper experience.

It is not to cases of sterility or of dysmenorrhœa only that rapid dilatation should be limited. As before stated, I use it to stretch open the canal for the admission of the curette and of tents, or for the purpose of making applications to the uterine cavity.* In cases needing irrigation of the uterine cavity, I first dilate the canal with the slender instrument, and introduce the nozzle of the syringe between the separated blades. This gives a free avenue for the escape of the liquid, and robs of its dangers this form of intrauterine medication. I also resort to the dilator in order to explore the womb with the finger. For instance, in a given case of menorrhagia in which a polypus or some other uterine growth is suspected, in order to avoid the delay and the dangers inseparable from the use of tents, I put the woman under an anæsthetic, and, after the rapid dilatation of the cervical canal to the utmost capacity of the instrument,—viz., one and a half inches,—am enabled to pass my finger up to the fundus. This is accomplished either by drawing down and steadying the womb by a volsella forceps fixed on to the anterior lip, or, in thin subjects, by forcing the womb down upon the finger through suprapubic pressure on its fundus. In this way I have, over and over again, at one sitting discovered a uterine growth, twisted it off, and removed it. Usually in these cases more difficulty has been experienced in removing the polypus or other growth through the narrow canal, than in twisting it off from its uterine attachment. It often has to be wire-drawn before its removal can be effected, and sometimes it will be found needful to enlarge the os uteri by a few nicks. Usually, when the menorrhagia has been free, the cervical tissue is so lax that, after dilatation, the index-finger can penetrate the canal and reach the fundus, but sometimes only its tip can be made to pass the os internum. Yet even this limited degree of penetration is commonly quite enough to decide the presence of an inside growth. If it be not enough, I invariably search for the growth with a small pair of fenestrated forceps, and I have repeatedly seized and removed one, the existence of which was merely suspected. After such operations the uterine cavity and the vagina are thoroughly washed out with a two and a half per cent. solution of carbolic acid.

I am sorry to say that I have not kept full records of all my cases of rapid dilatation. For instance, I have

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rarely tabulated office cases of dilatation, in which ether was not given. Nor has any note been made of cases in which dilatation was performed under ether for curetting, for digital exploration of the endometrium, or for the removal of uterine growths. I have tabulated merely cases of dysmenorrhœa, in single or in married women. In the married, with but three exceptions, which will be noted in the proper place, painful menstruation was associated with sterility.

Including all the cases of dilatation performed under ether, I must have had nigh three hundred and fifty cases. I have limited myself to these cases because the use of an anæsthetic implies full dilatation—one in which serious injury, if ever, would most likely be sustained. Yet, there has not been a death or a case even of serious inflammation, in my practice, and the results have been most satisfactory—far more so than when the cutting operation was performed by me.

Let me read to you a brief abstract of the statistics of my cases of dysmenorrhœa: Of single women, there were one hundred cases; of married, one hundred and nineteen; making in all two hundred and nineteen. Of the unmarried, twenty-four were unheard from after the operation, leaving seventy-six from which any data could be obtained. Of these, forty-five cases were virtually cured; twenty-four more or less improved; and seven were not at all improved. Of these seven that were not benefited by the operation, five subsequently had their ovaries removed—one of them by another physician, and four by myself: of the latter, one died. In each one the ovaries had become so changed by cystic or by interstitial degeneration as to make the dysmenorrhœa otherwise incurable. Of the twenty-four improved, there was one on whom oöphorectomy was also performed; for, although the dysmenorrhœa was partly relieved by dilatation, ovarian insanity and menorrhagia were not. The operation was a successful one, and my patient was not only cured of her hemorrhages, but she regained her reason. Out of these cases, the majority, although not wholly cured, were greatly improved. For example, one of them was formerly bedridden during the whole period of her menstrual flux, and had then to take large doses of morphia. She also suffered at those times from hæmatemesis and epistaxis. Since the operation she experiences pain for merely two hours, needs no anodyne, and has lost her ectopic hemorrhages. Her gain in health and flesh has been great. Another one, who was wholly crippled by her sufferings and made nervous by the dread of them, is now a busy nurse. For one hour at every period she suffers acutely, but not enough to overcome her dread of taking ether and of having a second dilatation performed.

Of those cured, two had Sims's cutting operation performed previously without benefit, and were afterward dilated; three were dilated a second time before a cure could be effected. The word "cured" in some of these cases, does not mean that the women were wholly free from any pain whatever, but that they did not suffer sufficiently either to go to bed or to take any stimulants or anodynes. The history of several cases merits more than a mere allusion. The sufferings of one of my patients at every monthly period had always been great, but while she was at a boarding-school they grew so excruciating as to cause furious delirium at those times. This finally culminated in permanent insanity, with suicidal impulses. While in this condition she was placed in my hands. After rapid dilatation of the cervical canal, the dysmenorrhœa wholly disappeared. The exemption from pain toned down some of her more extravagant delusions, but she did not wholly regain her reason until a few months afterward. She is now free from all menstrual pain, and is in the complete possession of her mental faculties.

A Hebrew lady, whose health had suffered from dreadful dysmenorrhœa, was so greatly improved by one dilatation, that her physician and her friends were amazed at her rapid restoration to health. Not long afterward the doctor asked me to perform the same operation upon another one of his patients, who was, if anything, worse. Her sufferings were so severe that he wrote, "I fear that another period might kill her," and urged an immediate operation. The cervix in this case was conical and very dense. Fearing a tearing of the parts, I screwed the instrument very slowly up to one inch and a quarter, and kept up this amount of dilatation for some twenty minutes. The cervix did not sustain any injury. The canal has since stayed open, and she is free from all menstrual pain. Another case was that of an unmarried lady, sent to me from a distant State, whose sufferings at her periods were so great that morphia, however administered, was not potent enough to allay them, and her nervous system became very much shattered. Finally, at her last monthly, she was compelled to have two physicians in attendance on her, who took turn about in administering chloroform night and day for forty-eight hours. This experience decided them to send her to me. One dilatation of an inch and a quarter wholly cured her.

Of the married, sixty-nine were heard from. Of these, forty-seven were virtually cured, eighteen improved, and four unimproved. Out of these sixty-nine cases, eleven were not in a condition to conceive: four of them from fibroid tumors of the womb, two from destructive applications of silver nitrate to a torn cervix, three from being over forty-one years of age, and one from being a widow. This leaves but fifty-eight capable of conception, and of these, eleven, or about 19 per cent., became pregnant. But the ratio is, in fact, larger, for I know that several of my patients, fearing pregnancy, employed preventive measures after the operation, and I suspected several others of doing the same thing. Then, again, I believe that yet others, who consulted me merely for painful menstruation, have not reported their subsequent pregnancies. For instance, of the eleven cases of pregnancy, five came to my knowledge incidentally and not directly from the ladies themselves. It is not much more than a year ago that I learned, by the merest accident, the subsequent history of a clergyman's wife, whose cervical canal I had dilated six years ago. She had been making up for lost time by giving birth to twins within a year after the operation, and later to several other children. She had been married eight years before she came to me, and had had her cervical canal dilated by tents and slit up with Peaslee's metrotome by a skilful surgeon.

One word more: While you can expect much from this operation whenever it is performed for dysmenorrhœa caused by flexion or by stenosis, you cannot be so sanguine with regard to its results in sterility. The

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reason of this is, that sterility associated with dysmenorrhœa often leads to such tissue changes in the womb as in time to make it incapable of forming a nest for the ovum, which, therefore, either escapes or perishes.

ORIGINAL ARTICLES.

EXTRAUTERINE PREGNANCY CHANGED TO INTRAUTERINE, BY MEANS OF FARADIZATION.

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IN a paper read before the American Gynecological Society, in 1882,[1] I could already compile ten cases of extrauterine pregnancy treated with electricity, besides a new one treated by myself in that way. Since then many cases have been published in medical journals and transactions of societies in this country, and one in Europe by Dr. Hochmann,[2] of Strassburg, which possesses particular interest, in that static electricity was used with perfect success to kill the fœtus as late as six months after conception.

The success has been so uniform that this treatment has been fully established as *the* treatment in this country, and it is only about minor details, such as the kind of electricity which is to be preferred, the duration of the application, the maximum development of the fœtus in which it is applicable, and the varieties of extrauterine pregnancy in which it ought to be used, that competent men yet entertain different opinions. These questions can only be definitely settled by accumulated experience, and in the present state of our knowledge it would be premature to lay down strict rules. This much is sure, that electricity in all cases, in this country, has proved a certain and safe remedy in the earlier months of extrauterine pregnancy. As to safety, it is especially to be extolled in comparison with the method of injection of morphine, which seems to be preferred in Europe. It is true, that none of the patients treated by the latter method died, but in all recovery was very slow, and in several the patient was at times in a precarious state. Friedreich's first case took a month, the second eight months, and the patient was at times decidedly hectic. Kœberlé's had a hemorrhage. Rennert's patient was under treatment during two months, and was seriously ill. In Fournier's case grave inflammatory accidents occurred, and he was obliged to have recourse to laparotomy.[3]

This time, however, I do not wish to discuss the merits of the electric treatment of extrauterine pregnancy. I only want to put on record a very curious case which recently was treated by me, with the unexpected result of changing a previously diagnosticated interstitial pregnancy into an intrauterine. It may be remembered, that already one case of this kind has been reported, namely, that of Drs. Charles McBurney, T. G. Thomas, and T. A. Emmet, the sixth in my above mentioned article, but that ended in abortion, while mine went on till the first half of the eighth month, when a child was born that lived seven hours, and might probably have survived if proper care had been taken. The details of the case are as follows:

Mrs. Sophia B., æt. 20, born in Russia, was confined for the first time, March 9, 1884. A finger-thick band, situated in the median line just below the os, had to be cut. Labor continuing tedious, she was delivered with forceps, the head presenting by the vertex in the right occipito-posterior position. She had a severe attack of diphtheritic vulvitis, vaginitis, and metritis. She became pregnant a second time in June, suffered much during the next four months, and had a premature delivery on January 1, 1885. In March began her third pregnancy, which interests us particularly here.

She menstruated for the last time, from the 18th till the 21st of March, 1885. On the 20th of May, she consulted me for dull pain in the right iliac fossa. The vagina had a lilac color; the uterus was scarcely enlarged in the median line, but presented at the part corresponding to the right upper angle a swelling without definite limits, and very tender on palpation. No vaginal pulsation.

On June 17th I saw her again. During the intervening four weeks the pain had increased very much. The uterus had grown, but preserved its irregular shape. On the right side the distance from the fundus to the pubic bone was four inches; on the left, three and a half. The right half was very tender on pressure, the left did not present any increased sensibility. The swelling had increased much in size, and filled the right side of the pelvis. The right half of the uterus was large and merged into the said swelling, the left was comparatively little enlarged. She had some shooting pain in the breasts, which were turgescent. Five days later, June 22d, at 10 A. M., she was seized with so violent pain that she thought she was going to have an abortion, and sent in haste for a midwife. I saw her at 3 P. M., and found the cervix closed, but soft, and giving the impression that it was going to dilate. All over the uterus, inclusive of the swelling, was heard an uncommonly strong uterine souffle. I distinctly felt that the left half of the uterus was flat, while the right half, together with the said swelling, formed a spherical mass. I explained to the patient and her husband that, in my opinion, she had an interstitial pregnancy in that part of the right Fallopian tube which lies in the wall of the uterus; that if I was mistaken, and the ovum was developed in the cavity of the uterus, an abortion was imminent; and that, therefore, the introduction of a sound into the uterine cavity could not do any harm, and would give important information in regard to the question of extrauterine pregnancy. Having obtained their consent, I introduced the sound to a depth of three inches and a half. It entered with the greatest facility, without meeting any resistance. It could easily be turned to the left, but when turned to the right it soon met resistance. There did not come any fluid, neither

[1] Trans. Amer. Gyn. Soc., vol. vii. p. 184.
[2] Hochmann, in Allgemeine med. Central-Zeitung, Berlin, April 21, 1883, vol. liii., No. 35, p. 409, and November 3, 1883, No. 88.
[3] Virchow's Archiv, 1864, xxix. p. 312. Archiv für Gynäkologie, 1877, xii. 355. Lusk, Midwifery, 1882, p. 320. Archiv für Gynäkologie, 1884, xxiv. p. 266. Charpentier, Traité des Accouchements, i. p. 1045.

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blood nor liquor amnii. This confirmed me in my diagnosis of right interstitial pregnancy. The pain was provisionally quieted with morphine, while I made preparations for the use of electricity. When I saw her again at 8 P. M., there was some bloody discharge from the uterus, but the cervix was unchanged. The faradization apparatus, which I had used with marked success in my previous case of tubal pregnancy, being at the instrument-maker's for repair, I bought a Smith & Shaw's closed cell pocket battery, applied the negative pole, consisting of a metal ball covered with muslin, against the tumor in the vagina, and the positive pole, formed by a large plate of carbon covered with canton flannel, on the abdomen just above and in front of the tumor. I used the lowest power of the primary current of both cells for ten minutes. The pain was quite supportable. Before beginning, I mapped out the whole uterus on the abdomen with ink, and later I went over the line with a stick of lunar caustic. It formed an obliquely oblong figure, five inches wide, three inches and a half high. Only two inches of the width lay to the left of the median line, three to the right. She did not sleep during the night on account of excitement, but had not much pain.

The next morning, June 23d, I found all uterine souffle had disappeared. The uterus was much smaller and softer, the change having taken place only in the right side. The uterine body measured now four inches in width, two on either side of the median line, and two and three-quarters of an inch in height. The cervix was unchanged. Nothing had been discharged from the vagina except a few drops of pure blood, no water, no shreds, no lumps. The breasts had become much flatter. Pulse and temperature were normal. Faradization as the evening before. During the day she had some vomiting, headache, and feeling of malaise.

The next morning, June 24th, the headache had disappeared, and she was free from pain, and was not even tender on pressure, except on the place corresponding to the fœtal sac.

On the following day (June 25) she felt quite well, and began to eat. The cervix was more closed than heretofore, and the whole uterus had sunk a little in the pelvis.

On the following day (June 26) the tenderness on vaginal examination was much diminished. In the lower part of the uterine body, mostly to the right, was felt a harder, somewhat kidney-shaped part, measuring two and five-eighths inches from side to side, by one and five-eighths in height (fœtus?).

During the following days this mass became less distinct, and after three days it could no longer be distinguished.

On July 1st, the tenth day of treatment, the uterus had again risen somewhat out of the pelvis, and measurements showed that it had increased both in width and height. By rectal examination in the left side decubitus, a soft, elastic, tender swelling, of the size of an English walnut, was felt behind the uterus, somewhat to the right (small ovarian cyst?). An artery was felt pulsating in the recto-vaginal septum.

For safety's sake, I applied faradization as above, on July 2d, 3d, 4th, and 5th. The patient felt perfectly well, and all tenderness on pressure had disappeared.

During most of July and August I was absent, and Dr J. C. Colles took care of the case.

On July 14th she said she felt as if that part of the uterus which lay to the left was growing, and that she had felt movements similar to those experienced in the fourth month of her previous pregnancies.

On July 17th she complained of quite severe pain in the lower part of the abdomen. The womb was evidently enlarged in all directions, but of regular shape. Faradization was used as before on the 17th and 19th, with the effect of stopping both pain and movements, and diminishing the size of the womb.

On the 23d of the same month I came on purpose to the city from a long distance, to examine this remarkable case. I found the uterus forming a regular globular body of considerably larger size than when I had seen it last, eighteen days before. The fundus reached five and three-quarters inches above the symphysis pubis, and five inches from side to side. The uterine souffle had reappeared, but no fœtal heart sounds or movements could be heard.

On July 27th she again felt the fœtus move.

On August 20th the fundus had approached the umbilicus to within a finger's breadth.

On September 2d I saw her again. The fundus was at the umbilicus. Fœtal movements could both be heard and felt, and the fœtal heart sounds were heard in the lower part of the uterus, to the right. She felt well, and continued to do so till the end of the next month.

On October 31st, at one A. M., she was seized with labor pains, sent for a neighboring midwife, and an hour later, by a normal delivery, gave birth to a well-developed female child measuring sixteen and one-half inches in length, and looking as if it weighed between five and six pounds. It lived five hours, and might probably have continued to do so if better taken care of. The parents had the old superstition, that "an eight months' child could not live." When I saw it eight hours after its birth, it had not even been washed. The after-birth was small, but otherwise of normal appearance.

Commentary.—When we look over the chief features of this case, we find, first, her severe diphtheritic inflammation of the womb, which may have obliterated the uterine end of the right Fallopian tube. In the intervening pregnancy, the ovum may have come through the open left tube, while in the third it came through the right, and was arrested in that part of the canal which lies in the uterine wall. Thus we have in her previous ulcerative metritis a predisposing cause of extrauterine pregnancy.

Even when I examined her for the first time, when she could be only eight weeks pregnant, the presence of the swelling in the right upper angle of the uterus, and the shape of the uterus were so peculiar, that I surmised it might be an interstitial pregnancy. A month later the difference in size, shape, and tenderness of the two halves of the uterus was so marked that I had a strong suspicion that I had such a case before me. When, a few days later, just at the end of the third month, she was seized with violent pain, which she referred to the womb, and

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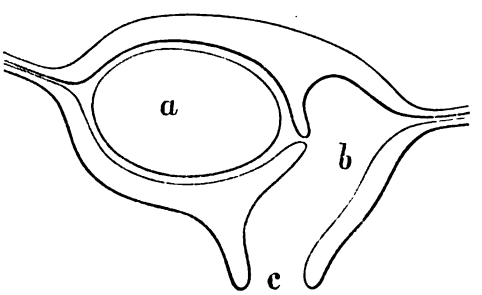
which she took for a commencing abortion, for which she sought help as quick as possible, there was not much doubt in my mind as to the diagnosis, and when I could introduce a common uterine sound three inches and a half through a patulous os, and turn it without the escape of any fluid, I think that was conclusive proof that the uterine cavity was enlarged, but empty.

I have asked myself the question, If it were not possible that the ovum might have been engrafted on the mucous membrane of the uterus close up to the right tube, and that coalescence between the decidua reflexa and vera had not yet occurred, so that the sound might have entered the space between the two? I have treated an abortion case in which the decidua had a prolongation like the finger of a glove, corresponding to one horn of the uterus. But, apart from real uteri bicornes, this shape of the uterine cavity, like a star with three rays, is only found in nulliparous women. In those who have borne children, the cavity becomes triangular and the horns much shortened.[1] Now our patient had an entirely normal uterus, as I have had the opportunity to ascertain many times both in the pregnant and non-pregnant condition. Furthermore, the sound was introduced when she was at the end of the third month. She stated that coition had taken place immediately after the cessation of the menstrual flow on March 21st, and the whole development of the uterus and the child corresponds to this starting-point. At that period of gestation the reflexa and decidua are in contact, and could only be separated by injection of water or insufflation of air.[2] In my case the sound entered with the greatest ease through a patulous cervix into an open cavity. It was in the median line, and could be turned to the left without meeting resistance, and somewhat to the right, when it was arrested by the large body situated in the right wall and bulging into the uterus. The condition found at the time of sounding may be represented by the following diagram.



a. Fœtal sac developed in uterine portion of right tube.
b. Uterine cavity.
c. Os uteri.

We can no longer doubt the possibility of a tubal, and especially an interstitial, pregnancy being changed into a uterine. The above mentioned case occurring in Dr. McBurney's practice, was diagnosticated by two gynecologists of such eminence as Drs. Thomas and Emmet. Before the use of electricity a tumor was felt overhanging the edge of the true pelvis, and extending beyond about two inches. After the second application there was bloody discharge. The tumor in the left iliac fossa disappeared with the exception of a small mass on the brim. In the median line, on the other hand, was felt a smooth, symmetrical tumor, and from the vagina was felt a tense and very strong bag of membranes protruding through a fully dilated cervix. On rupturing the membranes, a large amount of pure liquor amnii, and with it a dead fœtus about three months old, came away. The placenta followed in about twenty minutes.

Dr. Janvrin,[1] for many years assistant gynecologist to the New York Woman's Hospital, has reported a case which in some respects is very much like mine. Forty-nine days after the only coition that had taken place the uterus was found a little enlarged, the os was slightly patulous and considerable tenderness existed over the left horn and tube. Later a symmetrical enlargement was found of the left tube, being as great at the junction with the uterus as at any other point. He used considerable force in pressing upon the fœtus, trying to expel it into the uterus, but failed. During the night the patient had severe pains, like those of labor, confined to the left side of the uterus and to the tube, and at the same time there was a slight flow. The next morning the mass had disappeared from the tube. At all of his previous examinations the right horn of the uterus was much flattened, but within the last twenty-four hours the right side had become bulging, almost as much as the left horn. The fœtus was retained in the uterus till the end of the fourth month, but when it was expelled it had the appearance of only two months' development. The placenta was atrophied, except at one point as large as a thumb-nail, where it was fresh.

Those two cases were observed by accoucheurs and gynecologists of large experience, and go far to corroborate the view that in the present case likewise a tubal pregnancy was changed into an uterine; but mine differs from the others by the continued life and development of the fœtus.

Particular interest attaches to the question, how electricity acted in this case? Are we to conclude that electricity cannot be relied on as a fœticide? By no means. As stated above, the apparatus I had used on a previous occasion, and which was a one-cell carbon and zinc apparatus, with Bunsen's bichromate of potash solution, was not available. Instead of that, I used a Smith & Shaw closed cell battery, in which electricity is generated by the immersion of a zinc rod into a solution of bisulphate of mercury. I have since then found that this apparatus causes considerably more pain than the other, and, as I only used the sensation of the very nervous patient for a guide as to the strength of the current to be applied, it is evident that she got much less electricity than she would with the other apparatus, and much less than the amount used on my first patient, who was an uncommonly apathetic per-

[1] See Guyon's moulds of different uteri, Courty's Maladies de l'Uterus et de ses Annexes, Paris, 1866, figs 33, 34, and 36.
[2] Spiegelberg, Lehrbuch der Geburtshülfe, Lahr, 1878, p. 71. Tarnier, Traité des Accouchements, Paris, 1882, vol. i. p. 215.

[1] Amer. Journ. Obstetrics, August, 1885, vol. xviii. p. 855.

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son. The small amount of electricity passed through the fœtus explains why it did not die. Dr. Landis's experiments with insects, fishes, and rabbits, have proved that if the current is not strong enough, and not applied sufficiently long, the animal is only stunned and revives after a while.[1] In our case the length of the sittings was the one that commonly has been used, namely, ten minutes each time. That the fœtus withstood eight such applications can, therefore, only be referable to the weakness of the current.

I have hitherto believed that electricity acted primarily by killing the fœtus, and that all the other phenomena observable were of a secondary nature. But this case proves that it is not so. Here the fœtus was not killed, and yet we had a most marked effect of the application of electricity. During the application nothing peculiar was observable, except very moderate pain. No muscular contractions were seen or felt, and the womb neither decreased in size nor changed in shape. But when I saw the patient again, only twelve hours later, very remarkable changes had taken place. The bulk of the uterus had diminished one-third, which can only be explained by absorption of the liquor amnii, for nothing had came through the vagina except a few drops of pure blood. The severe pain had almost ceased, and the strong uterine souffle had entirely disappeared, both of which changes find a natural explanation in the diminished tension of the uterine wall. The womb had become much more symmetrical, which I ascribe to the removal of the ovum into the cavity. A few days later a mass, which, doubtless, was the fœtus, could be felt in the lowest part of the uterine body. With regard to the latter point, it may be worth mentioning that, according to the most approved views on placenta prævia, that condition is due to arrested abortion,[2] the placenta being thrown off from its attachment in the upper part of the womb, and finding a new one above the internal os. When in this way the ovum is detached, and has to engraft itself in a new place, we can understand that in the majority of cases it will fail to do so, and the process ends in abortion, as in Dr. McBurney's case; and that, if it really succeeds, it is less favorably situated than if it had been developed from the beginning in its new abode. This would explain why in Dr. Janvrin's case the fœtus, although retained in the uterus for two months after its migration, did not progress in development, and why the placenta was normal only on a small spot. In our present case development went on till the first half of the eighth month, but the placenta was small.

Even in the breasts the usual change from turgescence to flaccidity took place at the first application of electricity.

A month later, after movements had been felt, electricity was applied twice. This time there were again diminution of size of the uterus, cessation of pain, and cessation of fœtal movements for a whole week. The condition of the breasts was not noted.

We see, then, that, although the fœtus was not dead, but merely stunned, many remarkable changes took place in the womb and in the breasts.

We notice in the history that a slight discharge of blood occurred even before the application of electricity, and continued the next day. This, together with the violent labor-like pains, shows that a destruction of the obstacle which stood between the fœtal sac and the uterine cavity had begun. Electricity may be supposed to have made the removal easier by diminishing the bulk of the ovum to be dislodged, and was thus, perhaps, the factor which prevented miscarriage taking place at that time.

The practical value of this experience will, probably, be rather limited. In abdominal and true tubal pregnancy the indications will be, as heretofore, to try to kill the fœtus as soon as possible by means of a strong current; but, in the tubo-uterine variety, it might be worth while trying by means of a weak current merely to facilitate the removal from the cavity in the wall into the interior of the uterus, where, under favorable circumstances, it may form new connections, and be developed sufficiently to allow a living and viable child to be born.

THE THERAPEUTIC ACTION OF THEINE; A NEW ANALGESIC.

BY THOMAS J. MAYS, M.D.,
OF PHILADELPHIA.

THEINE is the active principle of the leaves of Chinese tea, and is generally reputed to be identical with caffeine, both in chemical composition and in physiological action. In a series of experiments, which appeared in the *Therapeutic Gazette* for September, 1885, I think I produced sufficient proof to show that it differs very markedly in its physiological action from that of caffeine; and I have since then gathered evidence to indicate that it differs as widely from the clinical action of caffeine as it does from its physiological action. In fact, caffeine principally affects the motor nerves, while theine chiefly influences the sensory nerves, and clinically proves itself a most valuable analgesic, surpassing morphia in promptness and permanency in relieving pain in some affections, without producing any, or at least very little, disturbance of the general nervous system.

In the experiments referred to, I drew the following conclusions concerning the general physiological action of theine: It paralyzes sensation before motion; it impairs sensibility from the centre to the periphery, and not, like brucine and cocaine, from the periphery to the centre; it produces convulsions which are spinal and not cerebral; it has a more powerful action on the sensory nerves, and less on the motor nerves than caffeine.

Its power to produce such decided and complete paralysis of the sensory nerves in the lower animals gave rise to a desire to test its physiological properties on the healthy human being, and, with this end in view, I introduced moderate, or probably small doses of the drug into the circulation by the subcutaneous method in a number of instances, and noted the results. In the main, there was a general agree-

[1] Henry G. Landis: The Cure of Extrauterine Fœtation by Electricity. Am. Journ. of Med. Sci., October, 1885, vol. clxxx. p. 446.

[2] E. Ingerslev, Placenta prævia, abstract in Amer. Journ. Obstet., 1882, p. 151.

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ment in the symptoms which developed, and hence, only one case, typical of the rest, will be given here. It was injected into the left forearm of an adult in good health, whose arm, however, was fatigued by carrying a satchel to railroad station the previous morning.

1.40 P. M. Injected $\frac{1}{5}$ grain of theine in left forearm, near elbow.
1.42. Fatigue in arm gone.
1.43. Diminution of sensibility in left forearm, especially around seat of injection.
1.46. Diminished sensibility extends as far as hand.
1.48. Some burning at seat of injection.
1.49. Touch impaired in tips of fingers of left hand.
1.51. Tingling in fingers and wrist of left hand.
1.52. No influence on pupil.
1.54. Voluntary motion of arm and hand unimpaired.
1.55. Arm and hand feel as if they were asleep.
1.56. No burning around seat of puncture.
1.57. Marked difference in sensibility between the two arms and hands.
2.02. No impairment of sensation above elbow.
2.03. Slight shooting pains along the posterior part of left arm above elbow.
2.06. Sensibility of finger tips impaired.
2.07. Pupils unaffected.
2.08. Finger tips very dull.
2.11. In playing the piano, can move fingers of left hand as well as those of right.
2.13. Mind perfectly clear.
2.15. Pulse 78.
2.16. Same difference in sensibility between hands and arms.
2.23. Pulse 74, and stronger.
2.26. Pupils not affected.
2.30. Sensibility absolutely gone around seat of injection.
2.32. Pulse 74.
2.33. Motion in left arm unimpaired.
2.34. Fingers and hands feel as if asleep.
2.40. Pupils unaffected.
2.44. Left hand numb.
2.55. No difference in temperature between two hands.
3.00. Pupils unaffected. Mind clear. No stupor.
3.01. Finger tips very numb.
3.06. Feels a little sleepy.
5.30. Sensibility still impaired, especially in finger tips. Arm above elbow uninfluenced.
6.40. Sensation more normal in arm. Finger tips still feel numb.
8.00. Sensibility entirely restored. There are some redness and tenderness around seat of injection.

These experiments confirm those which I made on the lower animals in the following particulars: Theine has a special affinity for sensation, and not for motion. It produces anæsthesia in the injected limb, which is confined below the seat of injection—*i. e.*, its influence extends from the centre to the periphery, and not in the opposite direction.

The products of all these experiments have led me to believe that theine would be efficacious in the treatment of painful affections of the long nerves, and I am able to state that this deduction was fully verified by the results which were obtained in the only two cases in which I had the opportunity of testing it. These two cases are the following:

CASE I.—Mrs. A. A., aged 49 years, came under my care May 2, 1885, when she had constant pain in right leg from hip to foot ever since the preceding Christmas. The pain followed the course of the nerves of the leg, and, of course, was very much aggravated by walking. The leg was considerably atrophied, and was weak and uncertain in its gait. Her appetite was poor, and bowels irregular, and she passed whole nights without sleep on account of pain. She was anæmic, and was treated with iron, quinia, ammonia, salicylate of sodium, iodide of potash, atropia, morphia, poultices, blisters, etc., without avail, until the following 18th of July, when I injected $\frac{1}{5}$ grain of theine into the calf of her leg. The pain ceased in less than five minutes, and never returned in its original force. In half an hour her heel and foot began to feel numb and insensible, which lasted for about twelve hours, but her mind was perfectly free from its influence. She experienced no headache, or drowsiness.

July 20.—Pain in whole leg better since last injection, but has not entirely disappeared from the thigh, so I introduced $\frac{1}{5}$ grain into the latter region.

28th.—Leg altogether free from pain, but still complains of some in foot. Otherwise, she is improving. Injected $\frac{1}{5}$ grain over instep.

September 6.—Feels better. Slight pain around ankle-joint. Injected $\frac{1}{10}$ grain more at this point. This was the last injection she received, and she made an uninterrupted recovery from this time on. The leg began to fill out, and at the present writing it is of the same dimensions as the left. She experienced no bad results from the theine injections, neither at the seat of injection nor anywhere else, except a few slight muscular twitchings in the leg after the first two injections. She expressed herself as being highly pleased with the result.

CASE II.—E. P——, aged 19 years, was suffering from pain in right shoulder extending from right side of spinal column along the arm to the tips of her fingers. The pain had been very annoying and frequently kept her awake at night. On examination, I found great tenderness on pressure over right brachial plexus, which extended down the arm of same side. She was anæmic, had dysmenorrhœa, and was treated by me with iron, quinia, and ammonia without any benefit, so far as the neuralgia was concerned—in fact, she said the pain was worse. On September 29, 1885, at 8.45 P. M., I injected, hypodermically, $\frac{1}{5}$ grain of theine over right brachial plexus. At 8.50 she said she had a feeling as if something was creeping over her right shoulder toward the arm. On examination, found sensation around point of injection, and over region where she experienced the formication, somewhat diminished. At 8.55, in ten minutes, she said that the neuralgic pain in the back was relieved. At 9, in fifteen minutes, the diminution of sensibility had extended

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from shoulder down arm. At 9.02, in twenty minutes, anæsthesia marked around seat of injection. Her head feels good and clear. At 9.15, in thirty minutes, neuralgic pain improved in fingers. At 9.17, in thirty-two minutes, still feels the creeping sensation over right shoulder. Sensation slightly impaired from shoulder to end of fingers.

September 30.—Slept well until 3 A. M., after which she was somewhat restless, but experienced no pain.

October 1.—No return of pain. Experienced no stupor or unpleasant sensation throughout experiment.

From the results of the action of theine in these cases it will be seen that it is a powerful anodyne without producing any intoxication of the higher nerve centres, which is so common with morphia and all other agents belonging to this class. Its influence is both quick and persistent, and it manifests an almost exclusive affinity for the sensory nerves. It relieves pain by acting from the centre toward the periphery, and showing its effects but very seldom above the seat of injection. This is precisely in harmony with what was found in the experiments on the lower animals. In $\frac{1}{10}$, $\frac{1}{8}$, and even $\frac{1}{3}$ grain doses it is entirely free from dangerous consequences—the only inconvenience which it causes is a slight, but transient burning at the point of introduction. I use a one per cent. watery solution of Merck's preparation —ten minims of which equal one-fifth of a grain of theine. Larger doses are required in some individuals in order to bring out its characteristic action.

I sincerely hope that the action of this agent will be further investigated, for, if the favorable report above given is sustained, it will certainly prove itself of the greatest clinical value, and will be a vindication of the modern methods of pharmacological inquiry.

1716 CHESTNUT STREET.

DISINFECTANTS.

REPORTS OF THE COMMITTEE ON DISINFECTANTS OF THE AMERICAN PUBLIC HEALTH ASSOCIATION.

XXII.

CONCLUSIONS.

THE experimental evidence recorded in these reports seems to justify the following conclusions:

The most useful agents for the destruction of spore-containing infectious materials are:

1. Fire. Complete destruction by burning.
2. Steam under pressure. 110° C. (230° Fahr.) for ten minutes.
3. Boiling in water for one hour.[1]
4. Chloride of lime.[2] A 4 per cent. solution.
5. Mercuric chloride. A solution of 1 : 500.

For the destruction of infectious material which owes its infecting power to the presence of micro-organisms not containing spores, the Committee recommend:

1. Fire. Complete destruction by burning.
2. Boiling in water half an hour.
3. Dry heat. 110° C. (230° Fahr.) for two hours.
4. Chloride of lime.[1] 1 to 4 per cent. solution.
5. Solution of chlorinated soda.[2] 5 to 20 per cent. solution.
6. Mercuric chloride. A solution of 1 : 1000 to 1 : 4000.
7. Sulphur dioxide. Exposure for 12 hours to an atmosphere containing at least 4 volumes per cent. of this gas, preferably in presence of moisture.[3]
8. Carbolic acid. 2 to 5 per cent. solution.
9. Sulphate of copper. 2 to 5 per cent. solution.
10. Chloride of zinc. 4 to 10 per cent. solution.

The Committee would make the following recommendations with reference to the practical application of these agents for disinfecting purposes:

For Excreta.

(*a*) In the sick room:

For spore-containing material;

1. Chloride of lime in solution, 4 per cent.
2. Mercuric chloride in solution, 1 : to 500.[4]

In the absence of spores;

3. Carbolic acid in solution, 5 per cent.
4. Sulphate of copper in solution, 5 per cent.
5. Chloride of zinc in solution, 10 per cent.

(*b*) In privy vaults:

Mercuric chloride in solution, 1 : 500.[5]

(*c*) For the disinfection and deodorization of the surface of masses of organic material in privy vaults, etc.:

Chloride of lime in powder.[3]

For Clothing, Bedding, etc.

(*a*) Soiled underclothing, bed linen, etc.:

1. Destruction by fire, if of little value.
2. Boiling for at least half an hour.
3. Immersion in a solution of mercuric chloride of the strength of 1 : 2000 for four hours.[4]
4. Immersion in a 2 per cent. solution of carbolic acid for four hours.

(*b*) Outer garments of wool or silk, and similar articles, which would be injured by immersion in boiling water or in a disinfecting solution:

1. Exposure to dry heat at a temperature of 110° C. (230° F.) for two hours.
2. Fumigation with sulphurous acid gas for at least twelve hours, the clothing being freely exposed, and the gas present in the disinfection chamber in the proportion of four volumes per cent.

[1] This temperature does not destroy the spores of *B. subtilis* in the time mentioned, but is effective for the destruction of the spores of the anthrax bacillus and of all known pathogenic organisms.

[2] Should contain at least 25 per cent. of available chlorine.

[1] Should contain at least 3 per cent. of available chlorine.

[2] This will require the combustion of between three and four pounds of sulphur for every 1000 cubic feet of air space.

[3] The addition of an equal quantity of potassium permanganate as a deodorant, and to give color to the solution, is to be recommended (*Standard Solution No.* 2).

[4] A concentrated solution containing four ounces of mercuric chloride and one pound of cupric sulphate to the gallon of water, is recommended as *Standard Solution No.* 3. Eight ounces of this solution to the gallon of water will give a dilute solution for the disinfection of excreta, containing about 1 : 500 of mercuric chloride, and 1 : 125 of cupric sulphate.

[5] For this purpose the chloride of lime may be diluted with plaster of Paris, or with clean, well-dried sand, in the proportion of one part to nine.

[6] The blue solution containing sulphate of copper, diluted by adding two ounces of the concentrated solution to a gallon of water, may be used for this purpose.

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(*c*) Mattresses and blankets soiled by the discharges of the sick.

1. Destruction by fire.
2. Exposure to superheated steam—25 pounds pressure—for one hour. (Mattresses to have the cover removed or freely opened.)
3. Immersion in boiling water for one hour.
4. Immersion in the blue solution (mercuric chloride and sulphate of copper), two fluidounces to the gallon of water.

For Furniture and Articles of Wood, Leather, and Porcelain.[1]

Washing, several times repeated, with:

1. Solution of mercuric chloride, 1 : 1000. (The blue solution, four ounces to the gallon of water, may be used.)
2. Solution of chloride of lime, 1 per cent.
3. Solution of carbolic acid, 2 per cent.

For the Person.

The hands and general surface of the body of attendants, of the sick, and of convalescents at the time of their discharge from hospital:

1. Solution of chlorinated soda diluted with nine parts of water (1 : 10).
2. Carbolic acid, 2 per cent. solution.
3. Mercuric chloride, 1 : 1000; recommended only for the hands, or for washing away infectious material from a limited area, not as a bath for the entire surface of the body.

For the Dead.

Envelop the body in a sheet thoroughly saturated with:

1. Chloride of lime in solution, 4 per cent.
2. Mercuric chloride in solution, 1 : 500.
3. Carbolic acid in solution, 5 per cent.

For the Sick Room and Hospital Wards.

(*a*) While occupied, wash all surfaces with:

1. Mercuric chloride in solution, 1 : 1000 (the blue solution containing sulphate of copper may be used).
2. Chloride of lime in solution, 1 per cent.
3. Carbolic acid in solution, 2 per cent.

(*b*) When vacated:

Fumigate with sulphur dioxide for 12 hours, burning 3 pounds of sulphur for every 1000 cubic feet of air space in the room; then wash all surfaces with one of the above-mentioned disinfecting solutions, and afterward with soap and hot water; finally throw open doors and windows and ventilate freely.

For Merchandise and the Mails.[2]

The disinfection of merchandise and of the mails will only be required under exceptional circumstances; free aëration will usually be sufficient. If disinfection seems necessary, fumigation with sulphur dioxide, as recommended for woollen clothing, etc., will be the only practicable method of accomplishing it.

For Rags.

(*a*) Rags which have been used for wiping away infectious discharges should at once be burned.

(*b*) Rags collected for papermakers during the prevalence of an epidemic should be disinfected before they are compressed in bales by:

1. Exposure to superheated steam (25 pounds pressure) for ten minutes.
2. Immersion in boiling water for half an hour.

(*c*) Rags in bales can only be disinfected by injecting superheated steam (50 pounds pressure) into the interior of the bale. The apparatus used must insure the penetration of the steam to every portion of the bale.

For Ships.

(*a*) Infected ships at sea should be washed in every accessible place, and especially the localities occupied by the sick, with:

1. Solution of mercuric chloride, 1 : 100 (the blue solution heretofore recommended may be used).
2. Solution of chloride of lime, 1 per cent.
3. Solution of carbolic acid, 2 per cent.

The bilge should be disinfected by the *liberal* use of a strong solution of mercuric chloride (the concentrated solution—"blue solution"—of this salt with cupric sulphate may be used).

(*b*) Upon arrival at a quarantine station an infected ship should at once be fumigated with sulphurous acid gas, using three pounds of sulphur to every 1000 cubic feet of air space; the cargo should then be discharged on lighters; a liberal supply of the concentrated solution of mercuric chloride (4 ounces to the gallon) should be thrown into the bilge, and at the end of twenty-four hours the bilge-water should be pumped out and replaced with *pure* sea-water; this should be repeated. A second fumigation after the removal of the cargo is to be recommended; all accessible surfaces should be washed with one of the disinfecting solutions heretofore recommended, and subsequently with soap and hot water.

[1] For articles of metal, use Solution No. 3.

[2] In order to secure penetration of the envelope by the sulphur dioxide, all mail matter should be perforated by a cutting stamp before fumigating.

HOSPITAL NOTES.

JEFFERSON MEDICAL COLLEGE HOSPITAL.

Service of PROF. S. W. GROSS, M.D.

THREE OVARIOTOMIES.

(Reported by M. P. Vander Horck, M.D., Resident Physician.)

THE following brief notes of three successful cases of ovariotomy, performed by a general surgeon in a general hospital, tend to show the absurdity of the position held by many specialists, namely, that such operations should only be undertaken by those who have been specially trained in this field of surgery, and who operate only in private houses or institutions.

CASE I.—A married woman, the mother of two children, was admitted September 14, having been tapped one month previously, and the enlargement of the belly having existed for four years and a half. Two days subsequently, a median incision, two inches long, was made midway between the umbilicus and the

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pubes; slight adhesions were broken up; a catgut ligature was applied to a bleeding vessel of the slightly adherent omentum; the contents of the cyst—two gallons of fluid—were evacuated; and the pedicle tied with a violincello string, and dropped. The external wound was closed with four silver sutures, which included the entire thickness of the abdominal wall, and the usual dressings applied. The operation was conducted under strict antiseptic precautions, including the spray, carbolic acid being the agent used. The stitches were removed on the tenth day; the patient was permitted to walk about the room on the fifteenth day, and was discharged five days subsequently.

CASE II.—A virgin, aged twenty-two, was admitted January 31, having been tapped three months previously, and the symptoms having existed for eight months. As in the first case, a short incision was made; slight adhesions were broken up; and two gallons of fluid evacuated from the multilocular cyst. The pedicle was tied with the same material and dropped, and the wound closed with three silver sutures. The spray and other antiseptic precautions were employed during the operation; the wires were removed on the eleventh day, and the patient went home seven days later.

CASE III.—A primipara aged thirty, who had had symptoms of ovarian cyst for two years and a half, was admitted October 17, and the cyst, which, with its contents, weighed eighteen pounds, was removed two days subsequently. There were no adhesions; the pedicle was tied with a violincello string and dropped, and the external wound closed with five silver sutures. In this case the spray was omitted, and a 1 to 1000 solution of corrosive chloride used for the hands, ligature, and outer dressings. The stitches were removed on the eleventh day; the patient sat up on the fourteenth day, and was discharged four days subsequently.

Remarks.—The highest temperature observed in any of these cases was 100⅛° F., and the convalescence in all was not interrupted by any untoward occurrence. In all, the pedicle was transfixed by a probe carrying a double catgut ligature, and tied in two portions before the cyst was detached. The preliminary preparations consisted in the administration of ten grains of calomel two nights before the operation, to clear out the bowels, and the exhibition of at least thirty grains of quinine, in ten grain doses, to obviate shock. Food was withheld for twenty-four hours after the operation, when a small quantity of milk was allowed, which was gradually increased, and alternated with soups. Solid food was not permitted for eight or ten days. As soon as the patient began to feel uncomfortable in the intestinal tract, which usually happened about the eighth day, six ounces of olive oil were thrown into the rectum, and half a ounce of castor oil administered by the mouth. With this exception, medication was not called for.

MEDICAL PROGRESS.

ANTISEPSIS IN OBSTETRICS.—In a recent monograph by C. FÜRST (*Die Antisepsis bei Schwangeren, Gebärenden u. Wöcherinnen*, Wien, 1885), the following conclusions are offered regarding injections of corrosive sublimate:

1. Large quantities of strong solutions must be avoided; the prolonged action of such solutions, or the continuous irrigation of fresh wounds therewith being dangerous. The fluid used must be expelled as far as possible. Before such irrigation, the uterus should be first lifted, and then compressed (Fritsch). Subsequent injection with some other antiseptic solution is recommended (Tänzer).

2. Anæmia enhances the danger attending the use of both carbolic acid and corrosive sublimate.

3. Diminished renal activity constitutes a contraindication for the use of such injections; and the state of the kidney in pregnancy probably conditions a marked predisposition to sublimate poisoning.

4. Especial caution is advised in high fever and septic diarrhœa.

5. The exit of the sublimate solution from the uterus through the Fallopian tube is especially dangerous.—*Centralb. f. Gynäk.*, Nov. 14, 1885.

EXCISION OF A CHANCRE.—The following interesting and apparently conclusive piece of evidence bearing upon the utility of the extirpation of the initial sore, is quoted from LENOIR'S lectures on syphilis.

A student in 1882 told him that on the previous night he had had intercourse with a woman who, he subsequently found out, was syphilitic. The woman had eroded papules of the vulva. The student was told to watch closely for the least appearance of a symptom, and to pay particular attention to any ganglionic engorgement or induration. He used a magnifying glass, and upon going to bed and arising in the morning he carefully examined his genitals with a good lens. He became a monomaniac upon the subject. Upon the 22d day at 2 o'clock in the afternoon he burst into Lenoir's office and, and having already come twice that day without seeing him, the first thing he did was to show his penis. Upon the free edge of the prepuce an elevated erosion was situated, as large as the head of a pin. It was rather a macule than an erosion; no trace of any induration, no inguinal adenopathy. This sore had appeared since midnight and it was only in the morning that the patient had observed it. The rest of the patient's integument was examined but absolutely nothing found. Supposing that this small erosion might be a chancre it was excised, a portion as large as a dime being removed. Cicatrization repidly followed without any induration taking place. But a few days later the inguinal ganglia became engorged and about six weeks later the secondary symptoms burst out as roseola, alopecia, and eroded papules. It certainly was not fourteen hours after its appearance that thorough excision was made, and yet the sequel proved how futile the means was. It would be well if many of the advocates of the local nature of syphilis at its inception were to take this example and ponder over it.—*St. Louis Med. and Surg. Journal*, October, 1885.

EXPERIMENTS UPON THE GASTRIC DIGESTION OF MILK.—The following results were obtained by REICHMANN in a series of observations upon the length of time required for the digestion of milk in the healthy human stomach. About one-half pint of raw milk was usually given to the person under observation, and removed by the sound and pump at varying intervals of time. The quantity mentioned was found to be digested in three

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hours, and in four hours the last traces of acid fluid had left the stomach. The maximum gastric acidity (0.32 per cent.) was attained in one hour and fifteen minutes. Peptone appeared in noteworthy amount in from thirty minutes to two hours. Boiled milk was found to be somewhat more rapidly digested than was raw milk.—*Zeitschr. f. klin. Med.*, Bd. ix. Hft. vi., 1885, p. 565.

MULTIPLE ULCERATIONS OF THE DIGESTIVE TRACT PRODUCED BY LARGE DOSES OF MORPHIA.—A. SOURROUILLE reports the exhibition, in a case of uterine carcinoma, of morphia in doses increasing from three-fourths of a grain to four grains. The sedative effect was prompt, but untoward effects soon appeared: thirst, dryness of mouth and œsophagus, with dysphagia, anorexia, constipation, etc. On the mucous membrane of the mouth and pharynx, and probably also at other points in the digestive canal, appeared a series of sharply outlined ulcerations of varying depth which rendered alimentation impossible. The symptoms disappeared upon the withdrawal of the drug, to reappear upon its renewal. Sourrouille maintains that morphia induces atrophy of the secretory organs and destroys the epithelium with which it comes in contact.—*Centralb. f. d. med. Wissensch.*, Nov. 7, 1885.

NEPHROTOMY FOR TOTAL SUPPRESSION OF URINE.—The patient upon whom Mr. Clement Lucas operated for total suppression of urine, lasting four days and six hours, and whose case was described in THE MEDICAL NEWS of November 21, 1885, is progressing favorably and gradually gaining strength. As, during the first week, no urine reached the bladder, a little concern was felt lest there might be another stone impacted in some lower part of the ureter. All anxiety on this score was, however, dispelled on the twelfth day, when, for the first time, the patient voided about two ounces and a half of urine by the urethra. Since that time, the amount passed *per vias naturales* has gradually increased. The wound has healed primarily, except where the drainage-tube is inserted, and the patient's temperature has scarcely risen above normal since the operation.

Mr. Lucas's case of nephrectomy, performed on October 20th, left the hospital well just three weeks from the date of the operation.—*British Medical Journal*, November 21, 1885.

ANTIPYRETIC ACTION OF THALLIN.—At the suggestion of von Jacksch, JACCOUD has administered thallin in eleven febrile cases, chiefly typhoid and tubercular. The sulphate and the tartrate of thallin were used with equally marked results; the average daily dose was eight grains, with a maximum of fifteen grains and a minimum of one and a half grains. The thallin salt was given in divided doses of two and a quarter to three grains at intervals of fifteen to thirty minutes.

The effect of the drug thus administered was constant, the average fall of temperature being 4.05° F. One patient, who received fifteen grains of the salt in the course of two hours, was threatened with collapse, the temperature falling 10.08° F. Jaccoud, therefore, states that great care must be exercised in avoiding the exhibition of an excess of the drug, and considers three-quarters to one and a half grains per hour, until the desired result is attained, as probably the correct dose. —*Gaz. des Hôpitaux*, 1885, No. 73.

GRAFT OF FROG'S SKIN UPON HUMAN NECK.—M. PETERSON has repeated his previous experiments relative to the grafting of frog's skin. The patient in this case suffered from an ulcer of the neck, and refused to furnish the flakes of skin needed for the grafting. Six graftings of frog's skin were required, several flakes being employed upon each occasion. The patient was discharged, as cured, forty-two days from the beginning of the treatment.—*Gaz. Hebd. de Méd. et de Chir.*, Nov. 13, 1885.

HYDROPNEUMOPERICARDIUM PRODUCED BY ROUND ULCER OF THE STOMACH.—DR. PARISOT, of Nancy, has collected (*Revue Médicale de l'Est.*, Oct. 1, 1885) six cases of this grave complication of gastric ulcer. The disease in each case was fatal, the termination being either cardiac paralysis or asphyxia. Out of 14 cases of pneumopericardium, from divers causes, only 4 ended in recovery. When the diagnosis of hydropneumopericardium is once made, the diagnosis of its origin from round gastric ulcer is based upon the following points:

1. Dyspeptic symptoms, hæmatemesis, etc.
2. Percussion: same pitch of sound in epigastric and præcordial regions.
3. Auscultation: transmission of abnormal bruits from præcordial region across the intestinal mass.
4. Functional derangements: general discomfort, and augmentation of dyspnœa by the presence in the stomach of volatile liquids (*e.g.*, ether).

Treatment. Prophylaxis.—The sufferer from round gastric ulcer must avoid all exertion, in order that the chance of rupture of the ulcer into the pericardium may be diminished. Cough and vomiting are for the same reason to be combated.

The communication between the pericardium and stomach once established, nothing remains but palliative treatment; nutritive enemata are, of course, in order, and the amount of fluid permitted to enter the stomach at one time should be very small. All medicinal agents (morphia, ether) should be exhibited only by the hypodermic method.—*Rev. de Thérap.*, Nov. 1, 1885.

INJECTION OF ESSENCE OF TURPENTINE IN FISTULÆ. —M. SETT. CECCHINI (*Annali univ. di Med.*, 1885, p. 101) claims for the injection of turpentine in fistulæ an alterative, a cicatricial, and, above all, an antiseptic action, in which last regard he considers the drug to be superior to carbolic and salicylic acids, thymol, and even the salts of mercury. It is injected either pure or diluted with olive or almond oil. The action is better and more rapid if the undiluted essence is used. With timid patients the essence of turpentine is mixed with a solution of chloride of morphia, with a reduction to a minimum of the pain involved. The method has been employed by Cecchini with success in five out of seven cases of anal fistula; without failure in six cases of caries of the petrous bone, and in eight cases of dental fistula complicated by a greater or less degree of caries of the maxilla. This treatment failed in one case of fistula of

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Steno's duct, and was completely successful in fifteen cases of atonic fistula.—*Gaz. Hebd. de Méd. et de Chir.*, Nov. 13, 1885.

COCAINE IN THE TREATMENT OF VAGINISMUS.—According to J. SCHRANK (*Wien. med. Wochenschr.*, 1885, No. 38) vaginismus may be regarded as the analogue of anal fissure, both in its symptoms and in its mode of causation. The condition is usually associated with a narrow vagina and tough hymen, the rupture of which latter, during introitus vaginæ, extends further than is needful. After producing local anæsthesia by the application of a four per cent. solution of cocaine, he dilates the vagina with a rectal speculum, thereby preventing cicatricial contraction of the lacerated parts, —with resultant disappearance of the vaginismus.—*Deutsche med. Wochenschr.*, 1885, No. 43.

THE PRESENCE OF PEPTONE IN INCUBATED HEN'S EGGS AND IN FIBROMATA OF THE UTERUS.—The earlier observations of FISCHEL (*Arch. f. Gynäk.*, Bd. 24 S. 425, 1884), in which he found peptonuria to be a frequent concomitant of pregnancy, and constantly present in the puerperal state, have led to further interesting experiments. In the course of 1884–85, forty-two hen's eggs, in various stages of incubation, have been carefully examined for peptone by the biuret reaction, with polarimetric confirmation, by Huppert's method. Peptone was absent until the fifteenth day of incubation, but usually present thereafter. Fischel is apparently unacquainted with the observations of Reichert, of Philadelphia, who has demonstrated the presence of peptone in the unincubated egg (*Phila. Med. Times*, May 17, 1884).

Fischel has further twice investigated uterine fibromyomata, and has shown the presence of peptone therein in both instances. The peptone in question appertained to the tissues of the tumor, inasmuch as in the contents of the abundant lymph and bloodvessels the peptone reaction was absent.—*Zeitschr. f. physiol. Chem.*, November 2, 1885.

PAROTITIS AFTER OVARIOTOMY.—The well-known connection existing between the parotid gland and the genital apparatus, frequently manifested in a swelling of the testis subsequent to parotid inflammation, has recently been found to express itself when the reproductive gland constitutes the initial point of irritation. Thus in addition to the case of Billroth, in which parotitis followed a traumatic orchitis, there are now on record nine cases in which inflammation of the parotid appeared as a sequel of ovariotomy. Five of these cases are described by Möricke (*Centralb. f. Chir.*, 1880, p. 667); two by Macdonald (*Edinb. Med. Journ.*, July, 1885); and two by Matwêff (*Ann. de Gynèc.*, xxiv. p. 105). In only one of these cases did any possibility of infection exist.—*Centralb. f. Chirurgie*, November 14, 1885.

MERCURIAL SOAP.—DR. SCHUSTER, of Aix, describes a mercurial soap, infrictions of which induce distinct swelling of the gums and increased salivary secretion after from five to twelve applications of ten to fifteen minutes' duration.

The composition of the soap, as made for Schuster by a local apothecary, is as follows:

Lard	400 parts.
Liq. kali. caust. (sp. gr. 1.33) . .	200 "
Saponify *lege artis*, and add water	100 "

Four hundred grammes of mercury are then most carefully rubbed up in two hundred grammes of tallow, with the addition of a little chloroform, which favors the subdivision of the mercury, and slowly, but completely, evaporates. Six hundred grammes of the potash soap, as above prepared, are slowly added and thoroughly mixed.—*Monatshefte f. prakt. Dermatologie*, November, 1885.

PROPHYLAXIS OF GONORRHŒA.—After passing in review the various hygienic prbcedures designed to diminish the liability to gonorrhœal infection, M. MARTINEAU strongly recommends the use of warm solution of bichloride of mercury, one part in five hundred, as a wash and injection. "It is desirable," he adds, "that every prostitute should have this solution in her room for the use of both parties before and after coition. The application of this solution to the surfaces exposed to contagion is without danger, and is very efficacious in its action upon the gonococcus." The formula given is as follows:

℞.—Corrosive sublimate . . .	2 parts.
Ammonium chloride . . .	6 "
Alcohol	200 "
Water . . . q. s. ad.	1000 "

—*Rev. de Thérap.*, Nov. 15, 1885.

SUICIDAL ATTEMPT WITH PETROLEUM.—REIHLEN (*Aerztl. Intelligenzbl.*, 1885, No. 35) reports the case of a vigorous female servant, twenty-two years of age, brought, unconscious, into the hospital. No response to auditory stimuli, and but feeble reflex movements when pricked with a needle. General appearance that of one in deep sleep; pupils reacted promptly; pulse, respiration, and temperature normal. No appreciable alteration in viscera. Odor of petroleum very marked, though a few drops only could be obtained on siphon out of the stomach. It was learned that the patient had, without vomiting, drunk five fluidounces of ordinary pure petroleum.

In the course of the afternoon patient urinated, and in the evening she recovered consciousness. On the following day she was greatly exhausted and very dull, but on the third day was completely recovered. The urine of the first day was apparently normal. A sample obtained by the introduction of an unoiled catheter, forty-eight hours after the attempt, possessed a strong oily odor, and showed a few large oily drops upon its surface, which analysis showed to consist of petroleum. No albumen or morphological constituents were at any time found in the urine. The odor of petroleum in the breath disappeared after five days.

Cases of poisoning with petroleum are rare and almost always progress favorably.

Merkel relates the case of a man who drank habitually an ordinary liquorglass of petroleum several times weekly without any disagreeable consequences.—*Deutsche med. Wochenschr.*, 1885, No. 43.

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A WEEKLY JOURNAL

OF MEDICAL SCIENCE.

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SATURDAY, DECEMBER 12, 1885.

THE FUTURE OF THE CONGRESS.

IT is generally conceded that the miscarriage of the plans for the organization of the proposed International Medical Congress at Washington has inflicted an injury upon the profession of this country which is widespread, and cannot yet be fully estimated, and a latent hope has been largely indulged in that some plan might still be devised by which all differences could be healed, the profession harmonized, and its good name rescued from imminent disgrace.

The time which should have been spent in active preparation for the great International gathering is now half gone, and to-day we have to show as the net result of the work yet done—discredit abroad, apparently hopeless dissension stirred up at home, and no actual preparation for the meeting. But eighteen months still remain, and we are so hopeful as to believe that even in that short time it is yet possible in a great measure to wipe out the injury done, to restore largely our good name abroad, to reunite our profession at home, and to make such preparations as will result in a creditable meeting of the Congress in our National Capital; but to effect this, immediate, concerted, and Herculean efforts, together with extensive mutual concessions, must be made—a delay of ninety days will make the difference between positive failure and possible success.

It is useless to consider the causes which have produced the existing lamentable condition of affairs; each side has its own explanation, but the fact remains. The time has now arrived when honor rises superior to all other interests, and demands that we shall combine for international purposes, and make good the invitation which, in the name of the medical profession of this country, was extended to our brethren of foreign lands to hold their next Congress at Washington.

Everyone who has had the true honor of his profession at heart, regardless of the mistakes that he thinks others have made, has looked upon the situation with feelings of the deepest sorrow and mortification, and has felt that, under the circumstances, any honorable sacrifice to avert the threatened disaster was a duty he owed to his profession and to his country. In this feeling the profession of Philadelphia share. Their city was the birthplace of the American Medical Association, and gave her the Code of Ethics. She is as thoroughly loyal to the Association and the Code now as she was thirty-eight years ago. Actuated by the same motives which influenced her then and made her a potent factor in the councils of the national profession, Philadelphia, after mature deliberation, exerts her influence again to-day for harmony, for concert of action, for the re-establishment of the good name of the profession, for the integrity of the American Medical Association. As she lately felt impelled by duty to set her face against the disastrous influences which were warmed into life at the New Orleans meeting, and are tending to the disintegration of the Association, and, as her voice went not unheeded, she now is emboldened to speak again, to the end that a practicable solution of our difficulties be enforced, so that our pledges to our foreign brethren may be redeemed, and our honor not become throughout foreign lands a byword and a reproach. Such a solution must be formed on a basis sufficiently broad to harmonize the *whole* profession; and, probably, the only practicable way of reaching it now would be, as the profession of Philadelphia have formally pointed out, by a union of the present Executive Committee with the Original Enlarged General Committee, and by this joint body beginning the work of preliminary organization *de novo*. Nothing less than this will meet the exigencies of the case.

We cannot but hope that the few who now have it in their power to effect this harmony will use their influence to that end, and by their action, under the present trying circumstances, show that they are ready to sink personal considerations for the public good. The occasion is one for the display of the highest patriotism, and the end to be attained is worthy of the greatest sacrifices. In accordance with the motto of one of the oldest medical societies of our country, let them act, *non sibi sed toti*.

TREATMENT OF ANEURISM OF THE ABDOMINAL AORTA.

THE medical treatment of aneurism of the aorta, consisting chiefly in absolute rest, starvation, and the administration of the iodide of potassium or of ergot,

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or of digitalis, has effected cures in a certain number of cases. Yet there will always be many which are not amenable to these methods, and which will require some surgical interference unless the patient is to be abandoned wholly to his fate.

The conventional treatment for other aneurisms, namely, ligation, is perhaps quite inapplicable to aneurisms of the aorta. For those of its abdominal part the operation has never been done. It is true that this part of the aorta has been ligated not less than ten times, but eight of these operations were done as near the iliac bifurcation as possible, for aneurisms involving the vessels below; while once the aorta was tied by mistake for the iliac, and once it was tied because it was impossible otherwise to control hemorrhage from the renal artery after extirpation of the kidney. Of the patients, none lived more than a few hours, except one, operated upon by Monteiro, who survived ten days and died of hemorrhage from an opening in the aorta above the ligature, and one of Patrick Heron Watson, who lived seven days and died of gangrene of the legs. References to all of these operations are given in the sixth edition of Gross's *Surgery*, and full and accurate details of them are to be found in a recent paper by P. LIEBRECHT, of Liége (reprint from *Journal d'Accouchements et Révue de Méd. et de Chir. pratiques*, Sept., Oct., and Nov., 1885), which contains a translation of, and comments upon, a report of an operation for the cure of an abdominal aneurism, high up on the aorta, by Loreta, of Bologna.

In this case Loreta, after a careful study of its peculiarities and of the results of other operative procedures in analogous cases, decided to open the abdomen, and to introduce into the sac of the aneurism a metal wire. This he did, using a silvered copper wire, half a millimetre in thickness, which he passed through a fine canula, piloted by a trocar and thrust into the aneurism. When he had introduced more than two yards of the wire, he pushed the end of it into the sac, and withdrew the canula. He now touched the point of puncture with carbolic acid, and had not a drop of bleeding. The further details of the operation consisted in replacing the viscera: the colon, stomach, and omentum, and in closing the wall of the abdomen with nine interrupted sutures. The wound healed by first intention, and the patient's condition was at once improved. The tumor, which had been as large as the head of a newborn child, diminished to the size of a walnut by the seventieth day after the operation, when the aneurism was considered to be cured. On the ninety-second day after the operation the patient died of rupture of the aorta below the sac. An autopsy disclosed the fact that the aneurism was filled with consolidated fibrinous clots, and was of the smallness mentioned. The rupture of the aorta below the sac was attributed by Loreta to an ischæmia of the tunics of the aorta, due to compression and to changes going on in the interior of the sac. Besides this, the patient was believed to be syphilitic.

It is to be noted as a defect in the report of this case, that the account of the autopsy does not settle distinctly the exact seat and relations of the aneurismal sac, or the causes of some of the symptoms observed before the operation.

But we have here a noteworthy contribution to the methods of treating aneurism within the abdominal cavity. The operation may be considered, we think, a practical success, and to invite imitation. The operator acknowledges his indebtedness to the practice of Moore of London, who, in 1864, introduced twenty-six yards of fine wire into an aneurism of the ascending aorta, but whose patient died in a few days. The practice of Levis, of Philadelphia, who first introduced horsehair into an aneurism, was not imitated by Loreta, because he feared septicæmia. If he had been familiar with the innocence of disinfected horsehair, used as a drain, we think he would not have objected to it on the ground mentioned. Indeed, we believe that such disinfected horsehair may yet prove to be the best foreign substance to introduce into an aneurism; for we cannot avoid the suspicion that the fatal termination of Loreta's case may have been caused by mechanical irritation of the wall of the aorta due to the rigidity of the material he used.

In deciding upon an operation for the cure of an aneurism of the abdominal aorta, it would not be right to overlook the comparatively good results which have followed the employment of mechanical compression, as by Lister's compressor. Of twelve cases treated in this way, five—one of which seems almost incredible—have recovered, two are set down as failures, and five died soon afterward of peritonitis, gangrene of the intestine, or rupture of the sac.

Finally, we would call attention to a suggestion made by Liebrecht, in the paper before us, that a method similar to that so successfully employed by Loreta might be combined with partial occlusion of the lumen of the aorta by a ligature which should not obliterate it entirely. This might prove a valuable modification of the operation by introducing wire or horsehair, which, before the case we have been discussing had appeared, has been adjudged by some of the most eminent surgical authorities to be utterly useless. One swallow does not make a summer; but we believe one success like that of Loreta warrants a reconsideration of this opinion.

UTERINE HÆMOSTATICS.

UTERINE hemorrhage is so frequent an accident, and in so many cases has such serious consequences, immediate or remote, that means for its arrest have

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been eagerly sought. Medicines that have been, or are used as uterine hæmostatics, may be counted by the score, but he who should try these various means would probably, at the end of his experience, be in the condition of Sganarelle, in one of Molière's plays, who said, "Remember never to believe anything, even if you should see everything." Some one has said that the end of all philosophy is a learned doubt, and certainly the end of all investigations as to the value of the many medicines asserted to be uterine hæmostatics will be a learned doubt, if not a positive denial of such virtue to the majority of these, and a qualified approval of the few remaining. Indeed, we know a distinguished gynecologist who rejects this entire class of agents; he has been so often disappointed by individual members of it, and relies solely upon copious vaginal injections of hot water.

Probably the tendency of therapeutics in recent years is to rely less upon the gross elements of materia medica, the things which we can see, handle, weigh, and more upon the subtle forces, such as heat and electricity, which the physician can bring to his command. And this tendency is very clearly shown in the department of obstetrics and diseases of women. The astringents, mineral or vegetable, which were once in such vogue, are now rarely employed for the cure of uterine hemorrhage; if the hemorrhage be grave and the danger imminent, one hardly feels like trusting a medicine which must first enter the circulation and then, in almost infinitesimal dilution, travel to the bleeding part, having there slight or doubtful therapeutic influence, when, by either of the forces mentioned, an instant and positive effect can be produced in most cases. Contraction of bloodvessels, or of the musculature of the uterus, or of both, must be the ultimate styptic power. The sooner that contraction is evoked, therefore, the better. A foreign body, as from incomplete abortion, or as in retention of the placenta in labor at term, may prevent perfect uterine contraction, and, therefore, this foreign body must be removed before a permanent cure is effected.

We may, by certain remedies, such as digitalis, slow the circulation, and thus lessen the flow, but we do not thereby cure. When hemorrhage results from an altered condition of the blood so that it has lost its plasticity, and thus one hemorrhage invites another, deep calling unto deep, we may in some of the cases ultimately cure the flow by remedies which improve the condition of the blood, a process, however, which requires weeks for its accomplishment. When the hemorrhage is consequent upon a toxæmia, as malarial poisoning, medicines addressed directly to that state, such as quinine or arsenic, in most cases prove of marked value.

The tincture of Indian-hemp has been strongly recommended in the hemorrhage caused by uterine fibroids, and in menorrhagia associated with painful menstruation: it is an uncertain remedy, and when it does do good, probably it is solely from the relief of the pain which acts in causing an increased afflux of blood to the uterus. So too opium may, in like manner, act favorably in similar cases, yet neither of these remedies is to be regarded as a certain uterine hæmostatic. The alkaline bromides, from their sedative influence upon the ovaries, may have a beneficial influence in some cases of menorrhagia.

A few months ago a distinguished German authority reported very favorable results from the tincture of hydrastin. The use of this agent for the relief of uterine hemorrhage is not new, at least in this country, but we cannot say from our own experience with the drug, which is probably too limited to justify a positive opinion, that its beneficial action is observed in all cases, or even in the majority. Kugelmann, however, has recently stated that he had succeeded in causing the menopause by hydrastin administered internally, and the local application of iodine.

Hamamelis has received the strong endorsement of CHÉRON in the October number of the *Révue Médico-Chirurgicale des Maladies des Femmes*. He advises fifteen to sixty drops of a tincture made of equal parts by weight of hamamelis and alcohol, twice a day. He also uses the solid extract, one part to five of glycerine, as an application to the neck of the womb, or the extract with cocoa butter, as a vaginal suppository. He asserts that this medicine exerts a positive influence upon hemorrhages and passive congestions, and upon the pain which accompanies these morbid states.

Ergot probably ranks in the professional mind at the head of uterine hæmostatics. It certainly is one of the most valuable remedies both for the obstetrician and the gynecologist. Without considering the obstetric uses of this agent, we may remark that its value in controlling uterine hemorrhage bears a direct relation to the development of the uterus; if this organ be of normal size in the unimpregnated condition, the power of ergot is usually slight, whereas if it be much enlarged, as by a fibroid tumor, that condition termed fibrous pregnancy existing, more decided effects from the remedy may be justly expected. We believe, in all cases of uterine hemorrhage, whether consequent upon a fibroid or not, and when the medicine is continued for a length of time, iron can be usefully combined with it, though there has been a vague notion that iron increases the flow, and, hence, is not to be administered when this is excessive. But, in the ergot treatment of uterine fibroids, it frequently happens that a good result is not obtained until the medicine is administered hypodermically. Why this should be so does not seem clear; that it is so some excellent professional observers

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assert. In hemorrhage from cancer ergot is useless; and this statement is true, whether the hemorrhage be caused by active congestion as it is in the early stage of the disease, or whether it result from ulceration, as it does in the further progress of the malady.

Time permits a reference to only one other uterine hæmostatic, to wit, hot water. This is applied by means of a rubber bag to the lumbar vertebra, or by vaginal injections. For the vaginal use of hot water to lessen profuse menstruation the profession is indebted to Trousseau, though its general use in uterine hemorrhage must be credited to Emmet. Vaginal injections of very hot water constitute one of the most certain means for the arrest of uterine hemorrhage; in some cases the injection is carried into the uterus. Those who have frequently failed with this means certainly have not used the water hot enough, or in sufficient quantity, or with the patient in proper position.

In regard to the mode of action of heat thus applied, all are agreed that it produces contraction of bloodvessels; though some, as Kleinwächter, insist that dilatation soon returns. Be this as it may, we have always regarded one of the asserted proofs of contraction of bloodvessels thus affected as possibly an erroneous interpretation of a fact. The shrivelled, shrunken skin of the fingers of a washerwoman, after having her hands in "the suds" for a time, is appealed to as a proof of the contractile power exerted by hot water. But the condition may be dependent upon osmosis from the vessels of the hand, rather than upon muscular contraction of bloodvessels. Those vessels are relatively emptied, not by compression, or at least not solely by it, but by the pressing out of a portion of their contents.

A NEW HYPNOTIC.

A MIXED acetone, known as phenyl-methyl acetone, the actions of which have been studied by Popof, of Warsaw, has been found by Dujardin-Beaumetz and Bardet, to possess valuable hypnotic properties. Within the body it is transformed into carbonic and benzoic acids, and is finally eliminated in the urine as hippurates. A dose of from 5 to 15 centigrammes, mixed with a little glycerine, and given in a gelatine capsule, causes in an adult a profound sleep. In alcoholic insomnia it seems to act better than chloral or paraldehyde, and in nine cases no ill effects were observed. The odor of the breath is rendered unpleasant by the elimination of acetone from the lungs. Injected beneath the skin of a guinea-pig it produces a remarkable torpor, which gradually deepens into coma, and the animal dies in five or six hours.

The name *hypnone* is suggested as a more suitable designation for this acetone.

REVIEWS.

AN ATLAS OF CLINICAL MICROSCOPY. By ALEXANDER PEYER, M.D. Translated and Edited by ALFRED C. GIRARD, M.D., Assistant Surgeon, U. S. Army. Ninety plates, with 105 illustrations. New York: Appleton & Co., 1885.

IN glancing over the original, *Microscopie am Krankenbette*, there was something about the work which we did not like, a flavor which did not commend itself to our mental palate. This seems a little less apparent on a careful inspection of the translation; though it remains very evident that the work is not one of a master. Dr. Peyer is a practitioner at Schaffhausen on the Rhine, who, after five years' practice, revisited the University in order to fill certain gaps in his knowledge. Clinical microscopy engaged a large share of his attention, and at the suggestion of a friend he began to draw systematically the various microscopic preparations he met with in practice. In the course of a few years, he thus accumulated a large number of drawings, and this *Atlas* is the result. The plates are generally good—better, on the whole, than the text. There are, however, some exceptions; the figures of anthrax bacilli in the blood do not represent these bodies. Either Dr. Peyer is a poor artist, which the excellence of the other drawings shows is not the case, or the specimen was one of vibriones. In the text, too, he speaks of the organism as "*a globular* or rod-shaped bacterium!" Neither the plates nor the description of the epithelium from the genito-urinary passages are reliable; the author has evidently never made a careful study of the epithelium of these parts in health. Eleven of the ninety plates illustrate spermatorrhœa, four or five of which are quite superfluous. Far too great stress is laid upon this condition, and not a word is said of the fact that a slight loss of semen at times with the urine may be considered normal in many men. The microscopy of the stools, which is stated to be the one least cultivated by the practitioner, has not sufficiently engaged Dr. Peyer's attention, or we should have had more than a single plate illustrating this important subject. We regret that we cannot recommend Dr. Peyer as a safe guide to the practitioner; the more so as the profession is just now in need of a good work on clinical microscopy. It is to be hoped that the translation of Bizzozero's *Manual*, which has been announced, will soon appear, as it will supply wants which this work scarcely meets. The author of this *Atlas* must not be confounded with the learned Professor of Physiology at Jena, W. Preyer—a mistake which we have heard made.

The translation seems very good; the plates are beautifully executed, and the work has the excellent finish which characterizes Appleton & Co.'s medical publications.

THE MEDICAL NEWS VISITING LIST, 1886. Philadelphia: Lea Brothers & Co., 1885.

THIS is not simply a visiting list, but will be a true *vade mecum* for the busy practitioner, who will find in the first fifty pages an astonishing amount of valuable information in a condensed form. The therapeutic section covers nearly twenty pages and contains a valuable

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table arranged from Lauder Brunton's text-book. A section on the ligation of arteries seems out of place in a visiting list, but a surgical emergency may arise when the practitioner is far from books and assistance, and just such a short account as is here given may refresh his memory and give steadiness to his hand. It appears in a firm, substantial dress, needful for a book so constantly in use.

SOCIETY PROCEEDINGS.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, December 3, 1885.

THE PRESIDENT, A. JACOBI, M.D., IN THE CHAIR.

NOMINATIONS FOR OFFICERS.

THE following nominations were made:

Vice-President: Drs. Henry D. Noyes and Wm. H. Draper.

Recording Secretary: Drs. Arthur M. Jacobus, George L. Peabody, and Frank P. Foster.

Corresponding Secretary: Drs. A. R. Robinson, H. J. Garrigues, and Wesley M. Carpenter.

Treasurer: Drs. Wm. H. Cushman, Joseph D. Bryant, and D. B. St. John Roosa.

Committee on Admissions: Drs. J. H. Emerson and Laurence Johnson.

Committee on Ethics: Drs. S. O. Vanderpoel, Joseph D. Bryant, and A. B. Judson.

Committee on Medical Education: Drs. D. B. St. John Roosa, David Webster, and C. Heitzmann.

Committee on Library: Drs. C. H. Katzenbach, J. A. Andrews, Laurence Johnson, R. H. Amidon, and Chas. T. Poore.

Trustees: Drs. George A. Peters and James H. Anderson.

THE WILLARD PARKER HOSPITAL.

The Secretary read a communication from Dr. E. H. James, Assistant Sanitary Superintendent of the Board of Health, announcing that the new Willard Parker Hospital, in East 16th Street, is now open for the reception and treatment of cases of contagious disease, and invited the President and Fellows of the Academy to visit it and inspect its accommodations. It is provided with a resident physician and a corps of trained nurses, and is designed for the treatment of patients suffering from such diseases as scarlet fever and diphtheria, who cannot receive proper care in their own homes.

DR. MORRIS H. HENRY read a

REVIEW OF THE LIFE OF THE LATE DR. LOUIS ELSBERG, AND OF THE ADVANCEMENT OF OUR KNOWLEDGE OF DISEASES OF THE THROAT DURING HIS PROFESSIONAL CAREER.

He paid a tribute to the memory of the late Dr. Horace Green, who died twenty years ago. As Dr. Elsberg was the first in this country to teach the use of the laryngoscope and to hold a public laryngological clinic, so Dr. Green was the first teacher of medicine who paid special attention to diseases of the throat.

DR. SAMUEL W. SMITH read a paper entitled

ORIGINAL DEDUCTIONS BASED ON A STUDY OF ONE HUNDRED CASES OF FRACTURE OF THE UPPER EXTREMITIES, EXCLUDING THE HAND.

He stated that he claimed no originality in what he had to say, except in regard to the use of certain splints devised by himself, which, so far as he was aware, had not before been employed. Nearly half of the hundred cases had been in children under twelve years of age. Of those occurring in children under twelve, twenty-five were fractures of the clavicle; while in patients between the ages of twelve and fifty, only eight had been fractures of the clavicle. Having spoken of the character of fractures of the clavicle observed by him, the deformity in which he attributed in large measure to the action of the subclavius muscle, he went on to treat of fractures of the humerus, in describing which, he mentioned that he referred particularly to those of the lower end of the humerus, where the fracture was through one or both condyles or caused a separation of the epiphysis. In speaking of fractures of the radius he paid special attention to the so-called cases of Colles's fractures, and referred to the character of the obliquity that is met with in different cases. The kind of apparatus required in any case, he said, depends on whether the obliquity is long or short. He denominates fractures of the lower end of the radius Colles's fracture only when they are of the long oblique variety. When the fracture is transverse, or of short obliquity, the deformity is easily reduced and the fragments readily retained in position.

In the treatment of fractures of the clavicle, of course, a great variety of apparatus has been devised, but those most commonly in use are Desault's method, with the axillary pad, Levis's modification of Fox's treatment, Sayre's adhesive plaster dressing, and E. M. Moore's shawl or figure-of-eight bandage. Sayre's method is simple and generally efficient, but a great objection to it is the irritation of the skin which the plaster is liable to produce, especially in young subjects. The compression of the forearm across the chest also interferes more or less with the circulation, and may cause so much discomfort as to call for its removal. Consequently, Dr. Moore's dressing is a step in advance; but neither the Moore or Sayre method is efficient when the seat of the fracture is located near the inner third of the clavicle, and long oblique. In a case of this kind he had resorted, with good effect, to a modification of Moore's figure-of-eight bandage, which consists in making a clove-hitch around the arm near the elbow.

More recently he had devised an apparatus of his own, which seems to possess all the advantages of the other dressings in use, and also some peculiar to itself. In this the elbow, secured in a leather sling, is drawn inward and backward by means of straps passing to a padded band, which is placed in the axilla of the opposite side, and fastened over the shoulder. A boy, in whose case a perfect result had been secured, was shown wearing the apparatus, and photographs were also shown which were taken before the latter was applied, exhibiting very marked deformity, and at the conclusion of the treatment.

In fractures of the condyles of the humerus, he said that he was convinced that the active combating of the inflammation usually manifested in the joint, is the

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only safeguard against anchylosis. When only one of the condyles is implicated, the ordinary anterior splint is generally efficient; but when the fracture involves both condyles, constituting what is known as a T fracture, he has found the usual methods of treatment quite inadequate. A varied experience, full of disappointments, in the use of the known splints in the more severe fractures of the condyles, had set him to work to make a splint with the following requisites:

(1) To hold the fragments firmly in apposition.

(2) To allow the forearm to be flexed and extended, pronated, and supinated.

(3) To lengthen or lessen the external lateral angle of the arm with fixation.

(4) To leave the entire elbow exposed for the purpose of making local applications during the whole time of wearing the splint, without disturbing the latter.

Such a splint he had accordingly devised, and he now exhibited it, consisting of two rods of untempered steel, with ball-and-socket joint, and fixation screws at the elbow and wrist; the rods being secured to the arm and forearm by means of plaster-of-Paris bandages. It had long been a mooted point among surgeons, he said, how soon passive motion of the joint should be commenced; some claiming that this should be at the end of a week, and others, not for three or four weeks. For his own part, he thought that the character of the injury in any given case should regulate the time for beginning passive motion.

In speaking of the treatment of Colles's fracture, he said that he had also devised a splint of his own for this; but his experience with it had not, up to the present time, been sufficiently large to warrant him in expressing any definite opinion in regard to its merits. He said, in conclusion, that he wished emphatically to protest against any splint whatever being left on for a week or more in any case of Colles's fracture. It is his own practice to remove the dressing every other day, and he said that unless this is done, deformity is very likely to result. To illustrate this, he mentioned a case in which a splint was allowed to remain on uninterruptedly for two weeks, when it was replaced by a plaster-of-Paris bandage, which was not disturbed for six weeks. The result was a very bad arm. In the course of the paper Dr. Smith also reported a large number of illustrative cases occurring in his own practice.

DR. JOSEPH D. BRYANT said that the cause of the deformity in fracture of the clavicle had been the subject of much dispute among surgeons; but in his opinion it depends simply on the fracture of the bone, and not on the action of any particular muscle or set of muscles. He spoke of the difference in the deformity according to the situation of the fracture, and said that he could not agree with the author of the paper that it is due, at least to any great extent, to the action of the subclavius muscle. If in the cadaver the clavicle be fractured, and the body hung up, it will be found that the same deformity results as in the living subject; and, therefore, it seems hardly likely that it is produced by muscular action. As to the method of treatment to be resorted to in this fracture, any apparatus that meets the indications present will secure a good result; though some of the dressings employed no doubt have special advantages. The Sayre dressing meets the indications, and he has used it frequently, with good results. The same is true of Moore's and others. In the same way, Dr. Smith's apparatus fulfils the indications, so far as he could judge from what he had seen of it to-night, and it seems to have the advantage over many others of greater comfort to the patient. This is an important point, and altogether he was much pleased with the dressing; so that he should like to give it a trial as soon as the opportunity occurred. On account of the lateness of the hour, he said that he did not feel that it would be right to discuss the other points mentioned in the paper.

DR. ALFRED C. POST spoke briefly of the different degrees of deformity produced by the location of the fracture at different points in the clavicle.

DR. GERLICH said that in one case in which he had employed Sayre's dressing he was obliged to remove it in a week on account of the discomfort which it caused the patient. After this he applied an ordinary bandage on the same principle as the apparatus devised by Dr. Smith, and the result had been entirely satisfactory.

DR. SMITH, in closing the discussion, said that, following Hamilton, he divided the clavicle into three thirds, and that deformity is always greatest when the fracture is situated in the middle third. As the insertion of the subclavius occurred at this part of the bone, it seemed reasonable to attribute the more marked deformity here to the action of this muscle.

THE REPORTING OF CONTAGIOUS DISEASES.

DR. C. R. AGNEW presented a resolution, which was unanimously adopted, to the effect that in the opinion of the Academy any judicial action which tends to prevent the early reporting to the Board of Health, on the part of the medical profession, of cases of contagious diseases, is contrary to public policy and detrimental to the public health.

PHILADELPHIA NEUROLOGICAL SOCIETY.

Stated Meeting, October 26, 1885.

THE VICE-PRESIDENT, CHARLES K. MILLS, M.D., IN THE CHAIR.

DR. HENRY M. WETHERILL, JR., read a paper on

HYOSCINE HYDROBROMATE.

We do not, as yet, know accurately the history of the discovery and introduction of this most important and valuable therapeutic agent; but certain it is that Landenberg, of Germany, was the discoverer of hyoscine and the first to investigate its properties. His observations were seconded by those of Edelfsen, Gnauck, Emmert, and others on the Continent. The English current medical literature has, I think, not made mention of it. To Dr. Horatio C. Wood belongs the credit of being one of the first to investigate its action in this country, as seen in his admirable monograph published a few months since.

It is said that hyoscine is prepared by a rather complicated process from the alkaloid hyoscyamine by treating the latter with baryta-water. The pure alkaloid hyoscine is so volatile and perishable that it is not available as a therapeutic agent unless combined with acids, which form with it salts of fair stability. Those at present found in the drug market are the hydriodate, hydrobromate, muriate, and, I think, the sulphate. My

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experience has been wholly with the hydrobromate, and it is this salt alone of which this paper treats. The most reliable is that produced by E. Merck, Darmstadt, whose three accredited agents in New York are Lehn & Fink, Schieffelin & Co., and Eimer & Amend. It can be obtained of the leading pharmacists of this city. In its gross physical appearance it resembles small crystalline masses and granules of potassium bromide. It is light in relative weight, opaque white, but not purely so, slightly inclining to be yellowish, rather deliquescent when exposed to the air. Seen under the microscope, it was very evident that its crystallization had been facilitated by stirring, as much of it was in very irregular, granular masses; but when allowed to evaporate spontaneously from its aqueous solution, it showed under the microscope handsome quadrahedral crystals springing from a granular base. These were entirely free from extraneous matters, transparent, and highly refractive. The literature of hyoscine is rather meagre in America; brief notices of it are to be found in the more recent works on therapeutics and materia medica. The other works devoted to this subject are Dr. Wood's monograph, the paper by Dr. Judson B. Andrews found in the *American Journal of Insanity* for October, 1885, a paper emanating from the Hudson River Hospital for Insane, in the *Medical Record*, 1885, and some papers from the pen of Prof. John M. Maisch in the *Philadelphia Journal of Pharmacy* for November, 1885.

Hyoscine hydrobromate is freely soluble in cold distilled water; but it will be found desirable to add to this menstruum ten per cent. of alcohol as a preservative. The following I have found to be a convenient formula:

℞.—Hyoscine hydrobrom. . . . gr. j.
Aqua destillat. . . . . f ʒix.
Alcohol . . . . . f ʒj.—M.

In every ten minims of this solution there is $\frac{1}{60}$th of a grain of the hyoscine hydrobromate. In prescribing the compounds of hyoscine care should be taken plainly to write in full the name of the salt, so as not to mislead the pharmacist with the impression that hyoscyamine has been ordered, and *vice versa*, as the hyoscine salts are far more powerful than are those of its sister alkaloid. Now thus having described the substance at some length, what have we found to be its exact physiological effects, and what do we find to be its true place in therapeutics after a very careful and painstaking study of its action which has extended over a period of six months upon the patients under our care in the Pennsylvania Hospital for the Insane? Before answering this question let me recount the effect produced upon myself by a very moderate dose taken by the mouth. I was in health at the time. Dose, $\frac{1}{120}$th of a grain. Before administration, pupils normal, equal; pulse 88, good; respiration 20 per minute; skin normal; temperature 98° F. Within 45 minutes the pupils were evenly and moderately dilated, the voice was hoarse, face suffused, conjunctivæ injected, temperature raised to 99.5° F., respiration full, slowed to 16 per minute, pulse slowed to 64, very full, considerable general relaxation of muscles, decided general sweat, impaired coördination, and a sense of fulness in the head and of wretchedness. I managed somehow to get to bed, and at once fell asleep, and so continued for nine hours. Awoke much refreshed, no ill effects, everything normal but the pupils, which were yet slightly dilated, but which regained normal conditions within two hours.

Now, in regard to our results as obtained by its use in the hospital. We have no hesitation in saying that as a hypnotic and sedative it has proved most valuable in our hands. As a hypnotic, the usual range of dose is from $\frac{1}{120}$th to $\frac{1}{60}$th of a grain, given at bedtime, preferably by the mouth—very frequently a less dose than gr. $\frac{1}{120}$th will be sufficient; gr. $\frac{1}{200}$th has often acted better in insomnia than has a larger quantity. It is seldom necessary to repeat the dose; and another very decided advantage possessed by hyoscine over hyoscyamine is that small doses can be continued for a long time without increase, whereas, the patient soon tolerates small and then moderate quantities of hyoscyamine, and, finally, resists even very large doses of it. We have given hyoscine a thorough trial in the insomnia occurring in the course of acute delirious mania, and with marked success, having succeeded, when all the usual modes of treatment had proved inadequate, in securing for the patient from six to ten hours of quiet sleep nightly for the past nine weeks, with but four or five exceptions; but one dose in every twenty-four hours, at bedtime, the amount ranging from gr. $\frac{1}{120}$th to $\frac{1}{70}$th. The insomnia in these cases is one of the chief elements of danger. If it is possible to give such a case a fair amount of sleep and of nourishment in a concentrated form, the probability of a favorable issue may be entertained. The insomnia of agitated melancholia, of the morphia habit, of alcoholism, of acute mania, of neurasthenia, of chronic mental disorder, with habitual wakefulness and motor activity, and in those confirmed cases of insomnia from unascertained cause, which usually prove so obnoxious to treatment, hyoscine has been found to answer a very good purpose. It does not invariably succeed; but the failures have been very exceptional. In many instances the chronic insomnious habit has been broken so as to permit of the withdrawal of the hypnotic. It is a severe test of the value of any hypnotic to administer it in daytime, and the drug under consideration has been found to act very well even under this condition. It seems scarcely necessary to refer to the unsatisfactory and often disappointing action of the hypnotics which are now in general use, and it would seem as though this remedy is the one for which rational therapeutics have waited for so long a time.

Now, as to its usefulness as a general sedative, we have had results which justify the assertion that it is the very best means at present at our disposal for calming the motor excitement of acute and chronic mental disorders, in their talkative, active, noisy, destructive, or violent phases. In this class of cases the range of doses may sometimes have to be greater than in the treatment of insomnia, from gr. $\frac{1}{120}$ to $\frac{1}{50}$. I have seldom been obliged to give so much as gr. $\frac{1}{60}$, and have rarely had to give more than one dose in twenty-four hours. As an occasional exception, a patient has been found whose excitement has successfully resisted a full dose; but it must be remembered that some cases of chronic mental excitement have been dosed with varying success through a period of years, until a peculiar condition of resistance to, and toleration of, remedies of this class has become established. Where a large number of excited patients are congregated, even though they may be

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classified with care, there are a few who seem to be the cause of most of the general disorder and confusion; reduce these few to a condition of comparative quiet, and the larger, but less aggressive, element remains tranquil. Following out this theory in the administration of hyoscine, we have had the satisfaction of seeing wards for excited patients quite transformed in character for the better; nor can this be fairly termed "medical restraint."

I have tabulated carefully our study of the physiological action of this remedy as a hypnotic and as a sedative, and have also tabulated our experience with hyoscyamine as a hypnotic. We had found the latter so decidedly inferior to hyoscine as a sedative that it was not deemed necessary to tabulate these results; but it must not be inferred from this that hyoscyamine is inert. It is a remedy of no mean value, and only second in activity to its sister alkaloid.

The tabulated statements to which reference has been made will appear in the forthcoming Report of the Committee on Lunacy of the Pennsylvania State Board of Charities for 1885.

Physiological Effects.—The physiological effect of a full dose of hyoscine—say, gr. $\frac{1}{60}$—is manifested within twenty minutes. These are brief, transitory bewilderment, marked interference with coördination, widely dilated pupils, slow, regular, very full pulse, dryness of the throat, relaxation of the vocal cords, very slow, full respirations, sometimes becoming Cheyne-Stokes, marked effusion of the face and of the general surface of the body, a slight rise in temperature, and free diaphoresis, which does not seem to restore normal temperature. There is general muscular relaxation, and a sense of wretchedness. Sleep usually follows, which continues from one to five hours, if the dose is given in daytime and the patient is not put to bed. This amount administered at night would be followed by sleep lasting for eight or ten hours. The mydriatic effect is rather transient, but usually persists through an entire day. The pulse is slowed about twenty beats per minute, and this effect gradually wears away during eight or ten hours, and is often followed by a very variable period of pulse acceleration, which seems to be simply a reactionary hastening of the pulse to restore the disturbed balance of the circulation. The normal rate of respiration is gradually restored through a period ranging from three to five hours.

The rise in temperature is not an invariable result, and is frequently small—seldom exceeding one and one-half degrees—and the balance of temperature is usually restored within two or three hours. Dryness of the throat often persists through an entire day. Suffusion of the surface of the body is usually transitory. In moderate and in small doses the effect is, of course, proportionate to the amount employed; but the same general symptoms are present and the patient is quieted accordingly. Interference with the appetite is sometimes observed. It does not seem to act upon the bowels nor upon the kidneys.

Hyoscine is not always well borne; occasionally the following symptoms have followed the use of a moderate dose: Nausea, vomiting, anorexia, dysuria, syncope, with small, rapid, irregular pulse, and with symptoms of partial paralysis of the pneumogastrics. This untoward condition occurred in a case of epileptic mania, in one of paretic dementia, in one of chronic dementia with excitement, and in one of acute hysterical mania. All of my personal experience of the action of hyoscine has been among females, and they are, I think, more susceptible to its action than are males. This is generally true of many drugs. Hyoscine is a spinal sedative of considerable activity. It has a decided influence over the spasms of a case of tetanus: a powerful man, whose life it certainly prolonged for some hours, and who died, not from convulsions, but from high temperature—this was, I think, 108° F. before death; but post-mortem, it rose to 116° F. This case was not mine, but I know that the observations were accurately taken with a corrected thermometer. Is it best to give the remedy hypodermically or by the mouth? It acts almost immediately, and in rather less dose, by the former method; yet we have preferred usually to give it by the mouth, as it acts very promptly when taken into the stomach, even in very small doses, and this method suffers no shock to an excited or timorous patient.

Among the physiological effects of hyoscine, one or two observers claim to have frequently noticed a primary acceleration of the pulse-rate, previous to its becoming slow and full. This I have not found to be the case, save in two instances, and even in these two cases the effect was not invariable. There is a source of possible error to be here taken into consideration—that the mere act of feeling the pulse, or even addressing some persons, causes a marked acceleration of the pulse, which may persist for some time should the patient be excited, timorous, apprehensive, or nervous.

From three observers of the action of hyoscine in another State, comes the report that their anticipations of the good effects of the drug had not been realized, after fair trial of an article which they thought was reliable; but there is reasonable ground for doubt that the substance employed emanated from Merck's laboratory. The evidence that it is a hypnotic and sedative of great value to the profession is rapidly accumulating. We have thus far found the different samples of Merck's hyoscine hydrobromate to be uniform in effect and in external characteristics, and are much pleased with its action. It has been in daily use and under close observation in our hospital practice, and we prescribe it with confidence in its activity. It is preferable to the other sedatives and hypnotics, as it is more certain and uniform in effect, convenient to administer, and free from injurious secondary effects.

DR. D. D. RICHARDSON said it had been his experience to find that hyoscine caused dilatation of the pupils. In some cases the pupils remain dilated for a few days; but, as a rule, the dilatation disappears sooner. The pulse was always much increased; with the exception of one case, it was always above 120. Respiration increased often to 40 per minute. He agreed with Dr. Wetherill as regards rise of temperature and increased respiration. The appetite is not influenced by the use of the drug. The secretions, he said, were generally increased, especially the kidneys. No constipation resulted from its use.

DR. CHAPIN had been a daily observer of the experiments of Dr. Wetherill, and entirely concurred with his remarks. He said he had always found the pulse to be hurried. The sleep which resulted from its use lasted from eight to ten hours. He thought the difference

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of opinion of the physiological action of the drug might be due to different preparations of it.

DR. WETHERILL, in conclusion, said that the dryness of the throat was very decided. There was also a relaxation of the muscles of the throat.

DR. G. BETTON MASSEY read a paper on

THE PRINCIPLES GOVERNING A CHOICE OF CURRENTS IN ELECTRO-THERAPEUTICS.

He pointed out the value of more accurate conceptions of the differences in the physical character of faradic and galvanic currents as a basis for their intelligent selection. The therapeutic value of faradism is due entirely to its electromotive pressure, while the most useful medical quality of the galvanic current is its volume. Electromotive pressure and electric volume are essentially different articles of the materia medica, and should be so considered.

The therapeutics of "volt-pressure" applications were reviewed, including the differing indications for slow succession and rapid succession faradic currents, and were contrasted with the therapeutics of "milliampère-volume" applications. The paper concluded with the statement that the faradic current presents the best form of electricity for the treatment of those diseases in which a stimulation of mobility or sensibility is either directly or indirectly curative, with the single exception of disorders characterized by the appearance of degenerative response, while the constant galvanic current may be relied upon to fulfil the remaining possibilities of electricity in medicine.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, December 4, 1885.

THE PRESIDENT, T. G. RODDICK, M.D., IN THE CHAIR.

BLACK GALLSTONES.

DR. RICHARD MACDONNELL exhibited a number of gallstones which had been removed from a dissecting-room subject. The stones were of a jet-black color, and resembled peppercorns in shape and size. When dry they were very friable, breaking with a resinous fracture and being easily reduced to a powder resembling India ink. This kind of gallstones, though rarely met with, has been described by Budd, who gives an excellent colored illustration of them. They do not contain cholesterine, but are made up of bile pigment and lime.

APPENDIX VERMIFORMIS COMMUNICATING WITH THE ILEUM.

DR. MACDONNELL also exhibited a specimen of appendix vermiformis which had formed a communication with the ileum about an inch from the valve. A probe could be passed through the appendix into the ileum. It was thought that the attachment to, and communication with, the ileum was due to a concretion which had previously existed in the appendix and had caused adhesive inflammation; as the specimen was taken from a dissecting-room subject, there was no history.

THROMBOSIS IN THE LEFT VENTRICLE OF THE HEART.

DR. GEO. ROSS showed a heart which had been removed by Dr. Johnston from a patient who lately died in the General Hospital. Both sides of the heart were greatly distended and there was marked bulging of the wall of the left ventricle just above the apex. The cavities contained soft blood-clots. There was no clot in the pulmonary artery or its branches. On opening the left ventricle a firm, decolorized, and apparently organized thrombus was found filling the spaces between the columnæ carneæ in the vicinity of the septum and projecting slightly into the cavity at a point corresponding to the bulging previously mentioned. The thickness of the thrombus exceeded that of the ventricular wall, which in places was reduced to one-fifth of an inch. A space between the thrombus and the heart wall was filled with a chocolate-brown fluid and the endocardium seemed to have disappeared. At some points the heart muscle was pale and in part fibroid. A small, firm, decolorized clot was also seen lying loosely behind the left coronary segment of the aortic valve, from this was prolonged a clot which completely plugged the left coronary artery. A small, firm clot filled the left auricle. Valves normal.

Dr. Ross remarked that the patient was a strong, healthy girl about twenty-five years of age who came into the hospital to be treated for an ulcer of the leg which was supposed to be of syphilitic origin. Suddenly she was seized with a violent pain in the left side of chest and great difficulty of breathing; her pulse was almost imperceptible at the wrist, and she was in great distress. The dyspnœa and pain grew worse and the patient gradually sank, and died five days after the first seizure. Dr. Ross at first thought it was a case of pulmonary embolism but was now at some loss to account for the symptoms.

DR. ARMSTRONG suggested that the clotting of the blood in the left coronary artery and the consequent loss of nutrition might, perhaps, account for the symptoms observed before death.

DR. T. WESLEY MILLS suggested that possibly the plugging of the coronary artery might explain the other clots and the peculiar symptoms, the lower clots being formed by the weakening of the heart's action due to loss of nutrition from plugging of the left coronary artery. In such an enfeebled heart a murmur could scarcely be expected to be heard, the obstruction to circulation and interference with nutritition giving rise to pain and disturbance of action of the pneumogastrics. Dr. Mills, in conclusion, remarked that there were other cases reported with the same symptoms, due to plugging of the coronary artery alone.

ENCYSTED CALCULUS OF THE BLADDER.

DR. SUTHERLAND showed, for Dr. Arch. E. Mallock, of Hamilton, Ont., a bladder with an encysted calculus. Dr. Malloch's report was as follows: J. C., æt. 76, had cystitis of one year's standing, due to catheterization, necessitated by retention of urine, the result of hypertrophy of the prostate gland. The bladder had been sounded for stone on two occasions, and explored with the finger by an incision made in the perineum, but no stone was discovered; the bladder was drained through the perineal incision, but no appreciable relief followed, and the man died four days after. On examining the bladder post-mortem, its coats were found to be much hypertrophied, and the prostate of large size. The summit presented a diverticulum a third the size of the

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whole bladder, and contained a calculus the size of a small marble, and composed of triple phosphates. The communication between the bladder and diverticulum was of small size, and would only admit a lead-pencil.

ELEPHANTIASIS OF THE LEG.

DR. SUTHERLAND exhibited a remarkable specimen of elephantiasis of the left leg, which had been sent to the Museum of McGill University by Drs. Gooding and Greaves, of Barbados. The leg had been removed from a negro aged 23, who had suffered since the age of 11 from attacks of fever. After each attack the leg increased in size, until, from the great inconvenience it caused him, he decided to have it amputated. The enlargement commencing about three inches below the knee-joint, it was decided by Drs. Gooding and Greaves to preserve the joint. Whilst amputating, but little blood was lost, but some four pints of lymph escaped. The man survived the operation only nine days, dying of pyæmia. The leg, after being preserved some time in alcohol, measures around the calf twenty-five and a half inches, instep twenty-one inches.

FRACTURE OF THE SPINE.

DR. SHEPHERD presented a specimen of fracture of the spine, which had been removed several days before by Dr. W. Johnston from a patient who had been under his care some three years before. The man, three winters ago, whilst cleaning the snow from the roof of a house, missed his footing, and fell to the pavement below, a distance of some fifty feet. He was immediately brought to hospital, and, on examination, it was found there was a fracture of the back in the lumbar region. There were great swelling and deformity of the parts and complete paralysis of sensation and motion of legs. He had also incontinence of urine. The patient remained in hospital some months, regaining, after a few weeks, partial sensation and motion. The deformity very much lessened after the effusion was absorbed. He was discharged from hospital in the spring of 1883, and could walk about fairly well. He even took a situation as coachman for some time after leaving hospital.

This spring he hired himself out as assistant gardener, and said, whilst digging one day, felt something give way. Then he had severe pain and some swelling at site of the old injury, and lost the power to use his leg. He was brought to hospital, and it was found there were some swelling and great tenderness at site of old injury in lumbar region, complete loss of sensation, and but little power of motion in lower extremities. After being in hospital a week or two, he developed phthisical symptoms, and was transferred to the medical wards. He died of phthisis a few days ago, and at the post-mortem the vertebræ of the lumbar and lower dorsal regions were removed. The specimen showed slight left lateral curvature, with moderate angular curvature opposite the second lumbar vertebra. On making a vertical section, the body of the second lumbar vertebra was seen to be partially absorbed, and a ring of bone encroached upon the cord at this spot. There was a fracture of the spines of the second and third lumbar, and the invertebral substance between these two vertebræ had completely disappeared. There appeared to have been a fracture, also, of the lamina of the second lumbar. The cord and membranes disclosed nothing to the naked eye, and were removed for further examination.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, November 24, 1885.

THE PRESIDENT, CHARLES MCBURNEY, M.D., IN THE CHAIR.

DR. C. T. POORE read a paper on

EXCISION OF THE TARSAL BONES.

Disease of the tarsal bones is not an uncommon occurrence among children who apply for admission into hospitals. The following paper is based upon nine cases operated upon at St. Mary's Free Hospital for Children. Although there is nothing very noteworthy in any of the cases taken individually, yet when taken together they form a group from which one may draw a few practical deductions.

The following plan of operation was followed in all but one case, to which reference will be made further on. After rendering the limb bloodless by an Esmarch bandage, if the os calcis is to be removed, an incision is made from a point corresponding to the inner edge of the tendo Achillis and about an inch above its insertion, outward and then forward on the outer aspect of the foot to a point midway between the external malleolus and the proximal end of the fifth metatarsal bone, the incision being made directly down to the bone. The only tendons denuded are the tendo Achillis and that of the peroneus longus where it passes over the lateral surface of the os calcis. No vessel of any size requiring ligature is divided. The incision will be found to afford plenty of room. The periosteum is then divided and separated from the bone as far as possible with an elevator; it will then be found that the bone can be removed either as a whole or in pieces, the ligaments being divided as they present themselves. After removing all the bone and well washing out the cavity left by the operation, the constricting bandage is removed, and any bleeding points secured. The edges of the incision are brought together with silver wire, except at the posterior part of the wound, which is left for a drainage tube. I use silver wire because, in my experience, it is often necessary to hold the parts in coaptation longer than can be done with catgut. The foot is usually put up in a tin leg splint with a foot-piece at right angles to the leg. The cavity left after the removal of the bone is in some cases swabbed out with chloride of zinc, in others dusted over with iodoform. None were put up in a permanent dressing. The following is an abstract of the cases.

Case I.—F. M., three years of age, came to the hospital in 1874. She was an unhealthy-looking child. There was a large sinus from which there was a considerable discharge, situated upon the dorsal aspect of the right foot over the upper border of the cuboid bone. There was also disease of the first metacarpal bone of the left hand.

In September, 1874, the patient was etherized, and the disease was found to be confined to the os calcis. This was freely gouged, so as to remove all diseased bone. The portion left seemed hard and was supposed

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to be healthy. In January, 1875, as the wound did not close, some more diseased bone was removed. In April, as the foot was no better, an incision was made by splitting the tendo Achillis and then extending the incision forward upon the plantar surface of the foot, so as to afford room to remove the remains of the os calcis. The cavity thus left was stuffed with lint. The wound gradually filled up and she was discharged with her foot in good condition, the heel somewhat flattened and with a deep cavity behind.

Upon examination, November 1, 1885, eleven years after the operation, the foot was found in good condition. There had been no return of disease, no pain about it, and the child walked with but a very slight limp, scarcely perceptible. The heel, where there was a deep depression at the time of discharge, had filled out, so that the point of excision was represented by a mere line, occupying the posterior rather than the plantar aspect of the foot. The contour of the heel had filled out. There was obliteration of the plantar arch. I do not think that there had been any reproduction of bone.

Case II.—M. D., aged three and a half years, had had disease of the os calcis for some time. The bone had been gouged twice before coming to the hospital, but without any permanent relief. He was a healthy-looking boy. There was a sinus on the external aspect of the foot over the os calcis, through which diseased bone could be detected. In February, 1879, the old line of incision was reopened. There was found a sinus in the os calcis leading to a cavity in which was a loose piece of bone about the size of a filbert. The walls of this cavity were smooth and hard. The necrosed bone was removed, and the wound closed, in the expectation that the cause of irritation being removed recovery would take place, but after a time the parts assumed the same condition that existed before the operation. In May the bone was excised. It was found harder than normal. After the last operation the patient made a good recovery, and was discharged walking well. He has not been seen since his discharge from the hospital.

Case III.—M. R., aged seven years, was admitted February, 1879. Three months previous she began to complain of pain in the heel of the right foot. It then began to swell, and three weeks before coming under observation an abscess opened posteriorly, and has continued to discharge since. Diseased bone could be detected with the probe. In March the os calcis was removed. It was found entirely diseased. She was discharged from the hospital in June, able to walk well. She was seen November 29, 1885, when she walked well, with scarcely a limp, had no pain, and the old line of incision had not reopened. About one year ago, five years after leaving the hospital, an abscess formed on the dorsal aspect of the foot, and has continued to discharge ever since. There is now a sinus at this point. The patient seems healthy, and experiences no inconvenience from the foot. I presume there is diseased bone. There has been some reproduction of the os calcis.

Case IV.—Sarah J.; four years before admission received a cut on the plantar surface of her right foot from a piece of glass. The wound has never closed. Three years ago some diseased bone was removed, and since then several small pieces have come away. In November, 1879, the os calcis was removed. The bone was extensively diseased. In February she was discharged, able to walk well.

A week after her discharge she was brought to the hospital with a superficial abscess about the point of operation, caused, it was said, by walking with a badly fitting shoe. She was sent home in a few days. In May, 1883, her friends reported that she had had no further trouble, and that she walked well.

Case V.—C. R., ten years old, came to the hospital March, 1881, with the following history: Six months before, without known cause, a swelling appeared at the back of the heel, an abscess formed and opened, and has continued to discharge ever since. The os calcis was removed, and was found to be much diseased. He was sent home in June with a useful foot. Was seen November 20, 1885. There has been no change in the foot since leaving the hospital; can walk well, with but little, if any, limp, and is now employed as an errand boy in an apothecary's shop. There is, however, limited motion at the ankle-joint. There does not appear to have been any new bone formed.

Case VI.—Peter H., an unhealthy-looking boy, about six years of age, was admitted September, 1881. He had disease of the right os calcis, and carious bone in various portions of his body. In October the os calcis was removed. He did well for a time, then his foot began to swell, the old line of incision opened, and he was in a worse condition than before the operation. Other tarsal bones became involved in the disease. The bones were gouged, but with no improvement. In March, 1883, Syme's amputation was performed. The flap did well for a time, but finally sinuses began to form, and he was removed from the hospital. On examining the parts after removal, there was found considerable reproduction of bone.

Case VII.—K. A., three years of age, was admitted January, 1882, with disease of the os calcis of some duration. The bone was removed February, 1882. She was discharged April 20, the wound all closed, and able to walk well. Nothing has been heard from her since she left the hospital.

Case VIII.—Joseph M., six years of age, came under observation in February, 1882, with a history of disease of the bones of the left foot of some duration. There was a sinus over the astragalus through which carious bone could be detected. The foot was much swollen. On March 20, 1882, the sinus over the astragalus was enlarged, and that bone removed by gouging. It was then found that the anterior portion of the os calcis was diseased. The anterior two-thirds were removed through an incision on the external aspect of the foot, leaving the posterior portion of that bone. The foot did well for a time, the anterior part of the incision closing, but a sinus persisted posteriorly. In October, as the portion of the os calcis left was evidently diseased, it was removed. After this the wound closed, and he was discharged with a sound and useful foot. He has not been heard from since.

Case IX.—Edward L., two and a half years of age, was admitted September, 1882, with an extensive swelling on either side of the left ankle-joint. Fluctuation was marked. He had been lame for some months. The abscess in the ankle-joint was opened under ether. The lower end of the tibia and the articular surface of

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the astragalus were found denuded of cartilage. The diseased bone was gouged and the joint drained. The abscess continued to discharge for some time, and then the sinus closed about the ankle-joint, but a new opening formed over the anterior surface of the astragalus in front of the ankle-joint. Later, the astragalus and os calcis, which were found diseased, were removed. At the time of the operation there was no disease about the end of the tibia, and the bone was well covered. Patient was discharged from the hospital with a useful foot, all sinuses being closed. November 19, 1885, he was seen at the hospital. He has had no trouble with the foot since, can walk well with a slight limp. The end of the tibia occupies a lower plane than that of the sound limb, so that the ankle-joint is depressed. There has been some reproduction of bone.

Of these nine cases, the os calcis was alone removed in seven, the os calcis and astragalus in two. A useful foot was obtained in eight, and in one amputation had to be performed. In but one of these eight cases has there been any return of the disease in the other tarsal bones, and in this, not until five years after the operation. All but three cases have been seen or heard from within the past year, and in all, with but one exception, the foot has continued in good condition, and the patient able to walk and be about with other children without any inconvenience except a slight limp. In all, there has been obliteration of the plantar arch, and a tendency to walk upon the inner border of the foot. All complain that the inner side of the shoe is worn out first, but there has been no pain.

In regard to a partial removing or gouging of the os calcis for disease, my own experience has not been flattering: although a faithful trial of this procedure was made in four cases, no permanent cure was obtained, and only after total extirpation of the diseased bone did the sinus close. In one case the bone had been operated upon three years before admission, with no apparent benefit.

Case II., where there existed a sinus leading into the centre of the os calcis, in which was imprisoned a loose piece of dead bone, seemed very favorable for such an operation, yet the operation failed to arrest the disease and a total excision of the bone had finally to be performed. In another case the posterior third of the os calcis was left, it being apparently healthy, but recovery did not take place until this, too, had been removed. I am well aware that others have obtained good results from partial excision or gouging, but perhaps it was in older subjects and under more favorable circumstances. My own experience is entirely opposed to a partial operation in children. Perhaps one cause of the want of success in these cases is the fact that the bone was sclerosed and incapable of filling up the cavity left by gouging.

I have never made a resection of the ankle-joint in children; although I have seen some cases of disease of this articulation in which the lower end of the tibia and fibula were extensively diseased, they made a good recovery.

DR. H. B. SANDS said that it seemed to him that a distinction must be drawn between tubercular inflammation and osteomyelitis of the os calcis. So far as he had been able to judge while listening to the paper just read, Dr. Poore had reported only one case of true necrosis of the bone. In this there was a cavity with healthy walls, enclosing a piece of dead bone, which was removed by operation because the cavity would not close.

It was further stated that in this case when the os calcis was removed it was found to be firmer than normal, which would imply that it was not carious, and that the previous failure to obtain a cure was, as Dr. Poore had intimated, due to a refusal on the part of the bony cavity to fill up.

Dr. Sands doubted the necessity of removing the entire os calcis in cases of necrosis unless the necrotic process involves the entire bone, the indication being to remove only the loose sequestra. He recalled a case which occurred about fifteen years ago in a lad ten years of age, who was supposed by Dr. Van Buren, Dr. Parker, and himself, to be suffering from caries of the tarsus. There were several sinuses in the foot, and it was advised that the foot should be amputated. But an exploratory incision was made, and the os calcis was found to be a shell containing a large number of pieces of dead bone within a cavity which had a smooth lining such as is usually found in bones containing necrotic tissue. The pieces of dead bone were removed, and, although the walls of the os calcis were exceedingly thin, the cavity filled up within a few months, and the wound healed.

He had not had much experience in dealing with the os calcis in children, but in adults he thought partial excisions are often successful. He was somewhat surprised to learn that caries is so often limited to the os calcis. His own experience had been that this disease is rather apt to attack the astragalus and scaphoid, and other bones of the tarsus, rather than the calcaneus alone. He thought the tendency nowadays is to avoid excisions in cases of caries, and that the use of the gouge or the sharp spoon often gives satisfactory results, and enables the surgeon to be conservative to the fullest extent.

He believed that in one of the children presented the condition of the foot corroborated the statement which he had made a month ago, that after the removal of a large portion of the tarsal bones, provided the periosteum is left, considerable reproduction will occur. It was evident in that case that, although the entire os calcis had been removed, there had been a considerable reproduction of bone. It seemed to him to be a point worthy of consideration whether, in caries, excision should be preferred to an operation which is partial and which aims to remove only the diseased tissues. It may occur, however, that if a large part of the interior of the os calcis is removed the space may remain open, although much may be done to overcome that difficulty by nailing down the parts or fastening them by deep sutures. He was willing to admit, however, that the results obtained in Dr. Poore's cases were excellent.

DR. POORE said that almost all the cases he had reported were in the hospital for a long time, and that in those in which gouging had been performed the interval between the gouging and excision was in some cases one year at least. He had given the cases all the chances of recovery he could, but as suppuration had

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continued and the condition of the tarsus had not improved, and small pieces of bone had worked out, he resorted to excision.

DR. SANDS asked whether it is good practice to leave a case for one year after an operation. Is it not rather desirable to follow one operation by another with a view to removing all the diseased tissue as quickly as possible?

DR. POORE said he performed gouging in one case four times within one year. He had been very much disappointed in this operation. He certainly expected to see some cases get well after performing it, but he had never seen such a result. It might be because he had dealt with young children, the patients having been mostly under four years of age.

DR. LANGE recalled a very limited number of tuberculous affections of the os calcis and astragalus in which the disease was so limited that it was not necessary to remove the bones entirely. He had one such case where the principal seat of the disease was the bones of the ankle-joint, and there was also a tuberculous sequestrum in the os calcis which was removed, and the entire shell of the bone left, and finally recovery took place. He thought that in a good many cases of tuberculous necrosis recovery would eventually take place after sequestrotomy and scraping. It seemed to him that in Dr. Poore's cases a striking point was the difference between the reproduction of the os calcis and the astragalus—that is, there had not been a reproduction of the astragulus. In some of his own cases of total excision of the ankle-joint he had observed the same thing, and it was this probably which caused the amount of shortening in Dr. Poore's cases.

He had twice excised the first and second rows of tarsal bones during his service in Bellevue Hospital, and also cut away the surface of the os calcis and astragalus in one instance; in the other the extirpation was not so extensive: the result was a good one, although the patient was an adult person. The result in the first case he could not give, for the patient was removed from the hospital because she refused a secondary operation. The results of other surgeons are rather encouraging for operative interference—for instance, those reported by Neuber some years ago.

NEWS ITEMS.

NEW YORK.

(From our Special Correspondent.)

TRICHINOSIS.—The occurrence of eight cases of trichinosis among the members of a German family, who had previously enjoyed themselves at a birthday feast in which raw ham figured, is reported. There have been but four cases of the disease in this city since its discovery, and it would seem that imported ham was responsible in every instance.

A COCKROACH IN THE EAR.—Dr. Samuel Sexton, author of the admirable article in *Nature* the other day upon tinnitus as a disturbing factor in auscultation, recently presented to his class a case in which a cockroach was found in either ear. The boy had complained for four days of a "kicking noise," and examination revealed a very lively roach in the right ear. He referred to symptoms of the same kind from which he had suffered four years before; a further search revealed a second dead cockroach in the other ear.

FOUR CASES TO BE SENT TO PASTEUR FOR INOCULATION.—Four little children are to be sent to Pasteur for inoculation with the virus of hydrophobia, they having been bitten by mad dogs in Newark, New Jersey. They sail this week in the "Canada" in charge of Dr. Billings. Considerable rivalry seems to be manifested in the desire to manage the expedition, Mr. Carnegie, who founded the Bellevue Hospital Pathological Museum, having offered to defray all the expenses provided Dr. Biggs, of that institution, be permitted to engineer the enterprise.

THE COCAINE HABIT.—The case of the Chicago physician, whose exploits with coca have furnished the enterprising newspaper reporter with meat and drink for several days, has drawn forth an interview with a well-known throat specialist, who is in the habit himself of taking daily no less than twenty-five grains. He declares it a delightful stimulant, and states that no appetite has been so far formed.

MONTREAL.

(From our Special Correspondent.)

THE SMALLPOX EPIDEMIC.—The deaths from smallpox during the month of November reached the large number of 874. Still this is only a little more than half the number (1630) of deaths which occurred during the month of October. Up to the end of November the total number of deaths from smallpox was 3513. The hospitals are still full, and new wings are being opened. The old Hospital of St. Roch's is still occupied, notwithstanding the protests made by the Visiting Governors of the College of Physicians and Surgeons of Quebec Province. Among other things, they said: "Dirt, foul smells, and mismanagement are the characteristics of St. Roch's Hospital." Many patients who have been treated in St. Roch's have given most horrible details of the condition of the hospital and the methods of treatment. It is a perfect black hole of Calcutta, according to many. The doctor was incompetent, the nurses inefficient and neglectful, and the food (so-called) disgusting. Many dying patients could not get a drink a water. Still the Health Board deny everything, and endeavor to make the public believe that it is a perfect sanitarium, and no fault can be found with it, or the incompetent staff that run it. However, the profession are perfectly convinced that the place ought to be shut up, or rather burned down, and all the cases sent to the new hospital, where the air is good, the attendance fair, and there is plenty of room. I fear that we shall have smallpox with us for some time yet, as no efforts are being made to vaccinate the twenty French Canadian babes that are daily arriving and growing up unvaccinated. Fuel is thus continually being added to the flame. Until registration and vaccination are compulsory, smallpox, like the poor, will be always with us.

MEDICAL DINNER.—The annual dinner of the Undergraduates in Medicine was held on Thursday, the 3d of December, and was a most successful affair. About two hundred sat down, including several prominent citizens and public men.

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MCGILL UNIVERSITY.—There are two hundred and sixty-five students attending the classes of the Medical Faculty of McGill University this session.

LONGUE POINTE ASYLUM.—The Longue Pointe Lunatic Asylum is still in a most unsatisfactory condition. The government, stimulated by Dr. Hack Tuke's *exposé* of the state of affairs at this asylum, appointed two additional medical men to look after the interests of the patients, and to treat them as they thought best. The sisters in charge of the asylum refused to accept those appointments, and continued on their own medical man, who is a mere tool in their hands, and also appointed an additional physician. Heretofore the patients have had no medical treatment except that prescribed by the nuns, the medical men being mere ciphers, and the government physician having power merely to admit and discharge patients. It was the intention of the government to give the patients proper medical treatment, but the sisters seem to have the upper hand, and simply defy the government, with whom they have a twenty-one years' contract to farm the lunatics. Of course the government, by stopping the supplies, could put an end to this state of affairs, but they have neither the desire nor courage to fight with such a powerful corporation as the Sisters of Providence de St. Jean de Dieu, backed by the whole Roman Catholic Church. We hope that in time the darkness of ignorance and superstition which now envelops us may be dispelled by the enlightenment, if not of the nineteenth, at least of that of the twentieth century. Then smallpox will be a dim tradition, and lunatics will be treated like human beings.

THE INTERNATIONAL MEDICAL CONGRESS OF 1887.—A meeting of members of the medical profession interested in the International Medical Congress in 1887, to which prominent medical men from a number of cities were invited, was held at the Hall of the College of Physicians, Philadelphia, December 4, 1885, Dr. D. Hayes Agnew in the Chair.

It was stated that official notice had been given of the election, as members of the present Executive Committee of the Congress, of Drs. J. S. Billings and J. M. Browne, of Washington, D. C.; Christopher Johnston, of Baltimore; George J. Engelmann, of St. Louis; and J. M. Da Costa and William Pepper, of Philadelphia.

A general and strong expression of opinion was made in support of the American Medical Association and its Code of Medical Ethics, and sincere regret was expressed that hasty action on the part of the Association, and the introduction of false issues, had imperilled the success of the Congress. It was made entirely evident, however, that the acceptances of the above elections would not be regarded as affording any adequate guarantee for the future scientific conduct of the Congress, and consequently would not be followed by any coöperation on the part of the leading members of the profession now unwilling to join in that work. As an evidence of the earnest desire which is felt for the restoration of harmony upon this subject, and for the reorganization of the Congress on a basis which would command general support, and thus insure success, the view was unanimously expressed that if the present Executive Committee should unite with themselves the Original Enlarged General Committee, and recommence the organization *de novo*, this course would insure the desired result.

THE EXECUTIVE COMMITTEE OF THE CONGRESS.—The present Executive Committee, acting under the provision by which its membership may be increased to thirty, elected, at a meeting held in New York last month, Drs. J. S. Billings, U. S. A.; J. M. Browne, U. S. N.; Christopher Johnston, of Baltimore; Geo. J. Engelmann, of St. Louis; J. M. Da Costa and William Pepper, of Philadelphia, of the Original Committee. We are informed that all these gentlemen have declined to accept the appointments.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, FROM DECEMBER 1 TO DECEMBER 7, 1885.

POLHEMUS, A. S., *First Lieutenant and Assistant Surgeon.*—Relieved from duty at Presidio of San Francisco, California, and ordered for duty as Post Surgeon at Fort Halleck, Nevada, relieving Acting Assistant Surgeon Loven N. Clark, United States Army.—*S. O. 113, Department of California*, November 30, 1885.

VICKERY, R. S., *Major and Surgeon.*—Relieved from the assignment as Acting Medical Director, Department of Colorado, to date, the 16th instant.—*S. O. 200, Department of Colorado*, November 23, 1885.

BIRMINGHAM, H. P., *First Lieutenant and Assistant Surgeon.*—Ordered for duty at Camp Grant, Riverside Park, New York City.—*S. O. 256, Department of the East*, December 4, 1885.

BUSHNELL, GEO. E., *First Lieutenant and Assistant Surgeon.*—Ordered for duty as Post Surgeon, Fort Preble, Maine.—*S. O. 256, Department of the East*, December 4, 1885.

WILSON, WM. J., *Captain and Assistant Surgeon.*—Ordered for duty as Post Surgeon, Plattsburg Barracks, New York.—*S. O. 256, Department of the East*, December 4, 1885.

APPEL, D. M., *Captain and Assistant Surgeon.*—Ordered for duty at Jackson Barracks, La.—*S. O. 256, Department of the East*, December 4, 1885.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY FOR THE WEEK ENDING DECEMBER 5, 1885.

AULICK, HAMPTON, *Surgeon.*—Ordered to "Alliance" as relief of Surgeon G. P. Bradley.

BRADLEY, GEO. P., *Surgeon.*—Ordered to Naval Hospital, Philadelphia.

SHAFER, JOSEPH, *Assistant Surgeon.*—Detached from Naval Hospital, Philadelphia, and ordered to "Minnesota."

GAINES, J. H., *Passed Assistant Surgeon.*—Detached from Naval Hospital, Washington, and ordered to the "Dolphin."

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE-HOSPITAL SERVICE, FOR THE TWO WEEKS ENDING DECEMBER 5, 1885.

WYMAN, WALTER, *Surgeon.*—Granted leave to attend meeting of American Public Health Association, December 3, 1885.

BENSON, J. A., *Passed Assistant Surgeon.*—Granted leave of absence for fifteen days, November 28, 1885.

ARMSTRONG, S. T., *Passed Assistant Surgeon.*—Granted leave of absence for eight days, November 30, 1885.

WASDIN, EUGENE, *Assistant Surgeon.*—Granted leave of absence for thirty days, November 28, 1885.

WATKINS, R. B., *Assistant Surgeon.*—To proceed to Galveston, Texas, for temporary duty, November 30, 1885.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLVII. SATURDAY, DECEMBER 19, 1885. No. 25.

ORIGINAL ARTICLES.

MARION COUNTY, FLORIDA: AN IDEAL WINTER CLIMATE.

BY GEO. TROUP MAXWELL, M.D.,
OF OCALA, FLA.,
PRESIDENT OF THE MARION COUNTY (FLA.) MEDICAL SOCIETY.

THE considerate and humane, whether physicians or laymen, must feel a deep interest in the subject of a climatic sanitarium for invalids suffering with diseases of the respiratory organs, for, chiefly, two reasons:

1st. The appalling fatality of these diseases—the deaths from consumption alone being annually more than double the number from any other cause; and,

2d. The failure of the best directed and most skilful medical treatment to diminish the fearful mortality.

An appropriate inquiry, just here, is, does the result of change of climate offer sufficient encouragement to physicians and patients to warrant the former in advising and the latter in undertaking the inconvenience, labor, and expense involved in the experiment? If the results of the observations and experience of those who are in situations which enable them to draw correct conclusions, did not, as they certainly do, justify a positive affirmative reply, statistics would suggest such a response as appropriate.

No one can fail to discover the significance, or to appreciate the value of facts like these: "The mortality from consumption as compared with all other causes is, in Maine, 258 to 1000; Connecticut, 179; Pennsylvania, 142; South Carolina, 90; whilst in Florida it is only 58 to 1000." What explanation other than climatic influence can satisfactorily account for the fact, that, passing from our extreme Northern States, as we go southward there is a constant, rapidly descending ratio of mortality from pulmonary diseases?

Yet, striking as these figures are, they do not give full justice to Florida. Prof. Levis, of Philadelphia, says:

"The low mortality of Florida exists, notwithstanding the number of Northern invalids who seek too late its healthy air only to end their days and add to the normally very low death-rate. The best authority on the subject, Dr. Kenworthy, of Jacksonville, who has given much intelligent attention to climate in the cure of consumption, and to sanitary statistics in general, believes that the mortality from consumption among the permanent residents of Florida actually does not exceed 30 to 1000 from all causes."

Nor are the results of a comparison of mortality statistics so favorable to Florida confined to inquiry into the proportion of death in the Atlantic States. From the instructive pamphlet of Prof. Coomes, of Louisville, I take the following: In Minnesota the deaths from consumption are as 1 to 7.6, from all other causes; California, 1 to 7.2; Texas, 1.16; Louisiana, 1 to 10; Arkansas and Alabama, each, 1 to 14.2; Georgia, 1 to 15.6; Mississippi, 1 to 13.2; and in Florida, 1 to 17.8." I learned, during a recent visit there, from an intelligent physician located in the blue grass region of Kentucky, that in that section, so favored of God in other respects, the ratio of deaths from consumption is as 1 to 6 from all other causes.

These imposing facts, established by cold, unimpassioned figures, were not manufactured by persons who may be suspected of being influenced by personal or pecuniary interest in Florida. They are derived from the National Census and were arranged by non-residents.

There is, I believe, universal agreement among writers on the subject, that *equability of temperature, comparative dryness of air and soil, and purity of atmosphere*, are essential elements of a winter climate for invalids suffering from diseases of the respiratory organs. There is not such entire accord upon the question of *range* of temperature.

Common sense, observation, and experience unite in declaring that, for a large majority of such invalids, the temperature should be such as to warrant and invite them to be and remain indefinitely in the open air without discomfort, and to permit its free entrance into their apartments day and night. It is simply impossible to overestimate the hygienic effect of *living*, as it were, out of doors, breathing pure, fresh air, and basking in the genial light of the sun. An artificial climate with the elements of warmth and dryness, may be manufactured in every Northern home; but there is no substitute for the God-given pure air and sunlight which invalids can enjoy in Florida almost every day in winter.

Consumptives, as a rule, suffer from defective digestion and assimilation. Nutrition is, therefore, imperfect, and, as a consequence, the vital powers are depressed. The heat-generating function, especially, except as the result of too rapid destructive metamorphosis, is abnormally feeble. Such invalids are exceedingly sensitive to sudden alternations of temperature, and to changes in the hygrometric state of the atmosphere. A sudden fall of temperature, or a gust of moisture-laden wind, chills and blights them instantly. Can there be anything more unphilosophical, not to say cruel, than to send such patients to localities where the mercury often falls, in a few hours, from 30 to 60 degrees, and generally hovers in the neighborhood of zero; or to places where the conducting power of the air is rapidly increased by moisture-laden winds? In either case the strain upon the vital powers of an invalid is more than he can bear, and he sickens and dies; or lingers and languishes in the confined, impure atmosphere of a superheated chamber.

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The tendency to rely upon concentrated foods in the treatment of disorders of the digestive organs, has grown with the experience of their beneficial effect; yet in this enlightened age we are gravely told that the truly scientific method of managing the derangements of another system of organs, is to reverse this important principle of treatment. The impaired stomach requires concentrated food, thus imposing less labor upon, and giving partial rest to, an enfeebled organ; but the diseased, and probably disorganized lung can better recover, say these philosophers, on attenuated air! Therefore, their patients are sent "upon a high mountain," where, because the air is rarefied and attenuated, a small amount of oxygen is inhaled with each inspiratory effort, and the feeble heart is stimulated, and the diseased lungs' movements are hurried, that the demand of the poorly nourished body for oxidized blood may be satisfied. Instead of the much needed *rest*, so essential to inflamed organs, there is overexertion to breathe, and, therefore, irritation and aggravation of an erstwhile manageable case.

Granting the truth of Prof. Levis's remark, that "the ideal winter climate for invalids, embracing perfectly all the requirements, and suited to the fancy and caprice of sufferers, may not be found," it is capable of demonstration, nevertheless, that Florida possesses the essentials in a higher degree than any country now known.

It is my purpose to show that there is a portion of Florida, hitherto unknown, which is better adapted for a winter resort for invalids, especially those afflicted with weak or diseased respiratory organs, than any of the popular resorts of this, or any other country. Indeed, even the less favored localities of Florida will compare favorably with the resorts in other States or countries.

Perhaps one of the most surprising facts developed by the study of comparative meteorology, in its bearing upon climates, is that it *proves Florida to have a moderately dry atmosphere.* According to Vivenot's classification, an atmosphere with a percentage of humidity between 56 and 70, is moderately dry. Jacksonville, notwithstanding its unfavorable location upon the St. Johns River, and near the Atlantic Ocean, has 68 per cent. of relative humidity in its atmosphere, which brings it within the range of a moderately dry climate; "and this," Prof. Coomes says, "is much more moist than most of the interior towns."

The following table compiled by Dr. Kenworthy from the Signal Service Reports, shows that Jacksonville, in the matter of dryness of air, compares favorably with the popular resorts in all parts of the world:

"The public and a large majority of medical men speak of Minnesota as possessing a dry and desiccating climate, and of Jacksonville as having a moist and

Mean Relative Humidity.

	Years.	November.	December.	January.	February	March.	Mean for 5 months.	Mean for 5 months.
		per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Mentone and Cannes	3	71.8	74.2	72.0	70.7	73.2	72.4	
Nassau, N. P.	1	76.1	72.0	77.0	72.5	68.4	73.2	
Atlantic City, N. J.	5	76.9	79.1	80.6	77.3	76.8	78.1	
Breckenridge, Minn.	5	76.9	83.2	76.8	81.8	79.5	79.6	
Duluth, Minn.	5	74.0	72.1	72.7	73.3	71.0	72.6	74.5
St. Paul, Minn.	5	70.3	73.5	75.2	70.7	67.1	71.3	
Punta Rassa, Fla.	5	72.7	73.2	74.2	73.7	69.9	72.7	
Key West, Fla.	5	77.1	78 7	78.9	77.2	72.2	76.8	72.7
Jacksonville, Fla.	5	71.9	69.3	70.2	68.5	63.9	68.8	
Augusta, Ga.	5	71.8	72.6	73.0	64.7	62.8	68.9	
Bismarck, Dak.	1	76.6	76.4	77.4	81.6	70.6	76.5	
Boston, Mass.	1	68.0	61.8	66 6	68.2	63.7	65.6	

Rainfall in Inches and Hundredths.

	Years.	November.	December.	January.	February.	March.	Mean for 5 months.
Nice	28	5.11	4.12	3.06	1.68	2.89	16.86
Mentone	9	5.34	3.15	1.70	2.18	4.13	16.50
Nervi	7	6.00	4.88	4.78	2.33	4.49	23.40
Genoa	29	7.61	4.86	4.39	4.27	3.59	24.72
Atlantic City, N. J.	5	4.61	3.60	2.76	2.10	3.86	16.93
Augusta, Ga.	5	4.56	3.09	3.70	3.64	5.65	20.64
Jacksonville, Fla.	5	3.02	3.38	2.34	5.14	2.84	16.62
Key West, Fla.	5	2.43	1.33	2.18	2.22	0.94	9.10
Punta Rassa, Fla.	5	2.38	0.99	1.69	2.67	1.04	8.77

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changeable one—'an atmosphere loaded with moisture.' But three stations in the former give a mean of 74.5, and Jacksonville 68.8, or 5.7 in favor of Jacksonville."

To the same author I am indebted for the subjoined table, showing a comparison of the amount of rainfall during the five months beginning with November, comment upon which is unnecessary.

To illustrate by comparison another of the important factors of climate—the question of temperature, I avail myself of Dr. Kenworthy's industry and research, and take the following table, exhibiting the mean temperature of resorts in all parts of the world during the five months commencing with November:

Temperature.

	Years.	November.	December.	January.	February.	March.	Mean for 5 months.
Cannes, Mediterranean	3	54.6°	48.8°	48.5°	49.4°	52.8°	50.8°
Nice, Mediterranean	3	53.8	48.5	47.0	48.4	51.8	49.9
Mentone, Mediterranean	3	55 2	50.5	48.8	50.4	53.4	51.6
Nervi, Mediterranean	3	55.2	47.8	46.2	47.8	49.0	49.2
Nassau, N. P.	1	75.7	72.3	72.2	71.9	74.4	73.3
Atlantic City, N. J.	4	45.3	35.3	32.2	33.2	37.1	36.6
Augusta, Northern Ga.	4	54.9	47.6	48.1	49.6	57.0	51.4
Breckenridge, Minn.	5	17.3	13.4	6.8	13.1	18.9	13.9
Duluth, Minn.	4	28.8	21.6	12.4	19.2	25.7	21.5
St. Paul, Minn.	5	28.3	20 0	13.0	19.4	27.6	21.7
Key West, Fla.	5	74.5	70.5	70.5	71.7	73.8	72.2
Punta Rassa, Fla.	5	69.7	64.8	65.5	65.9	69.8	67.1
Jacksonville, Fla.	4	62.1	55.8	56.2	56.9	62.7	58.7
Aiken, S. C.	5	54.7	46.7	46 4	47.5	56.4	50.3
Los Angelos	1	62.1	55.3	54.1	54.6	55.8	56.3

"It is evident," says Prof. Levis, "that in Europe and in this country mild and warm climates have of recent years grown in favor as health resorts," and Dr. Kenworthy declares that "the modern professional view that *a temperate, dry, and sunny clime* is best adapted to the treatment of a large proportion of pulmonary diseases, is one of the most valuable contributions that modern science has made in the treatment of such diseases." Such being the case, I ask the reader's careful consideration of the facts I have as concisely as possible presented, confident that they must lead the minds of all impartial inquirers to the conclusion that in Florida are to be found the elements of a *climatic sanitarium* in a higher degree than are to be found elsewhere.

But Florida is a large State, covering a great extent of territory, with, of course, varying topographical features, which, to a certain degree, exert a modifying influence upon the climate of different localities. "During a visit to Florida," says Prof. Coomes, "I was much impressed with its great advantages as a winter resort for persons suffering with pulmonary affections, and with the charming features of its climate and scenery. There is an impression with many who have never visited this peculiar portion of the continent, that it is a low, damp country, mostly covered with water, but the visitor finds instead lands as fair and dry as those of Kentucky. It is true, that certain localities are made up of lowlands, interspersed with small lakes, and sluggish rivers and creeks. The lands of Florida may be divided into what are known as high pine lands, high hammock lands, low pine lands, low hammock lands, and swamp lands. The last named three varieties are to be scrupulously avoided by consumptives. It is a well-known fact that there are unhealthy localities in almost every State of the Union, and Florida is not without them. These we would expect to find along the St. Johns River, and in marshy districts." The above statements and opinions of Dr. Coomes, are so true and sensible, that I quote them to adopt them as my own. He who does not realize that there are great differences in healthfulness, and suitableness to the requirements of invalids, in a State with such an extensive area and varying topographical conditions as Florida, is inexcusably ignorant.

It is quite forty years since, as a boy, I made my home in Florida. Fully three-fourths of that time I have been actively engaged in the study and practice of medicine—at Tallahasse, Key West, Fernandina, Jacksonville, and Ocala. It is my misfortune, or fault, if I have not an intelligent idea of the topography, diseases, and climate of the State. Upon the assumption, if you please, of knowledge derived from study, observation, and experience, I must, if possible, dissuade physicians from advising their patients and invalids to go to either coast, *but especially the Atlantic.* The current of cold water which, starting from the Arctic Ocean and passing through Davis's Strait, is forced by the gulf stream against the Atlantic shore of the North American Continent to the southern extremity of the peninsula of Florida, chills the moisture-laden east wind which prevails on that coast, and renders it blighting in its effect upon invalids. To a large class of cases—those with feeble digestive and aspirative powers, who consequently make heat slowly and imperfectly, the Atlantic coast is positively obnoxious.

On the other hand, excess of moisture in the atmosphere with an elevated temperature is hurtful,

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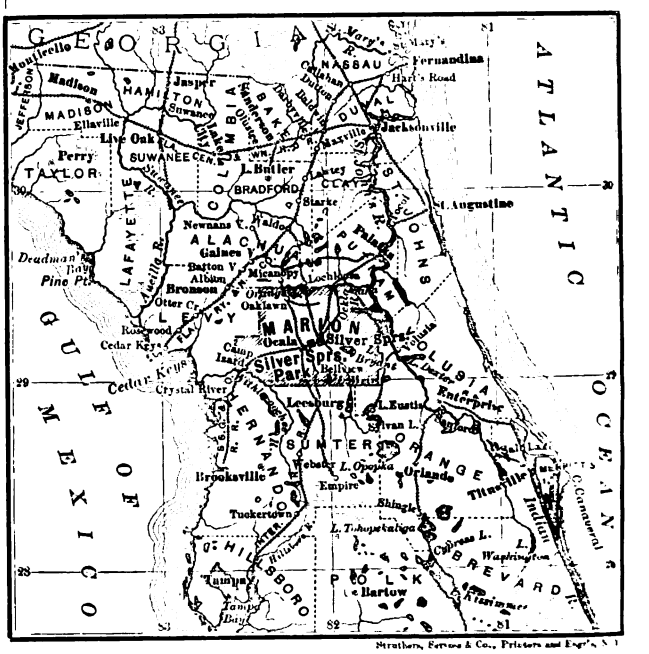
because evaporation is retarded, and perspiration, which in a moderately dry air would escape insensibly, accumulates upon the surface of the body as sweat, increasing discomfort and producing lassitude and debility. Besides, "a high thermal range, more especially if associated with a moist atmosphere, interferes with physical exercise, and in this respect is injurious. Hence, a climate like that of Nassau or Cuba is objectionable as a resort for pulmonary invalids" (Prof. Levis).

During my residence at Key West, as Surgeon of the Marine-Hospital, I personally experienced the force of Prof. Levis's objections to the climate of Nassau and Cuba, in the similar climate of the Key. Like the fabled vampire bat, that delightful but treacherous climate sucks the life-blood, whilst the genial trade wind fans and lulls into fancied, but false security. It is for those reasons that I would advise against sending patients, except the small class who require a warm, moist, sedative climate, to the Gulf coast, particularly to the southern portion of the peninsula.

A moderately warm, dry, and bracing climate, with plenty of sunshine, and few sudden and great atmospheric changes, is especially adapted to consumption in its earlier stages, to catarrh, chronic bronchitis, chronic pneumonia, rheumatism, renal diseases, and some cases of asthma. A warm, moist, and sedative climate is better adapted to cases of advanced phthisis.

Fifteen years ago (1870) whilst residing in Jacksonville, my attention was called to the peculiar excellence of the climate of the central portion of the peninsula by Prof. John T. Metcalfe, of New York, who, as a Lieutenant of the United States Army, on the staff of Gen. Jessup, acquired personal knowledge of the subject during the Seminole war; and he advised me to locate and establish a sanitarium there. At that time, and for more than ten years after, there being no railroads into the interior, access was difficult for the robust and impossible for the feeble. Bearing in mind the advice of Dr. Metcalfe, and having the impression made by him deepened into conviction by personal investigation, I came to Ocala four years ago, railroads having meanwhile reached this point. At that date hotel accommodations were inferior and insufficient, and for that reason I could not consistently with a sense of duty to patrons, and, therefore, would not persuade invalids to come to Ocala, notwithstanding the great advantages which nature, with liberal hand, has bestowed upon the locality. The difficulty no longer exists. There is abundant accommodation; there being four hotels—two of them substantially and elegantly constructed of brick, and first class in their appointments—and numerous comfortable boarding-houses. Now, I feel it to be my duty to call the attention of the profession and of invalids to the peculiar climatic advantages of Marion County.

By reference to the map, it will be seen that Marion County is situated in the centre of the peninsula, being about equidistant from the northern boundary of the State, and the southern habitable limit, and from the Atlantic and Gulf. Ocala, the county seat, is about fifty miles from the Atlantic Ocean and forty from the Gulf. It is, in fact, the "backbone" or watershed of that portion of the State. With a mean altitude of about 100 feet above the sea level, the surface of the county is beautifully undulating. This topographical feature insures thorough surface drainage, which contributes to healthfulness, and gives picturesqueness to the scenery which is pleasing to the eye. There is another fact in the topography of Marion County, the importance of which, in a hygienic point of view, cannot be exaggerated—that is, its remarkable exemption from surface water. In this regard it is unique, as a comparison with any other county of the peninsula will show. Look at the map of Florida, and it will



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be seen that, while every other county is dotted with ponds and lakes, from Orange Lake, on the north, to Lake Wier on the south, and from the Ocklawaha on the east, to the western boundary of the county—a distance each way of about forty miles—there is not here a body of water of sufficient size to be put on any map which has yet been published.

Whether this remarkable feature of the topography of Marion County is due to there being less precipitation, or rainfall, or to a pervious soil which permits percolation of water to great depths, or, as I believe, to both, the effect of making less evaporating surface, and, therefore, of causing a dry soil and atmosphere, results all the same, and that is the all-important element in its bearing upon health. Equable, warm temperature, and dryness, are, I repeat, the essentials in a health resort for invalids suffering with diseases common to higher latitudes; and tried by these tests, Marion County will be found to be fully up to the requirements.

Observations made by surgeons of the United States Army, during the Seminole war, at Fort King, now Ocala, show the following facts: Mean annual temperature is 70°, mean winter temperature 58.41°,

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and for five months beginning with November, 60.55°.

The mean annual rainfall is 40 inches. Of this, 21.69 fall in the three months of summer, and for the five months beginning with November, the mean is 6.21 inches.

The late Dr. Forry, surgeon of the United States Army, distinguished as a physician and in natural science, says: "Whilst on the northern lakes, the annual ratio of fair days is 117, on the coast of Florida it is 250, and at Fort King (now Ocala) it is 309." Can any array of statistics be more impressive? Dr. Baldwin, as the result of twenty-five years' observation, says: "For the whole year there are 235 clear days at Jacksonville," which gives to Ocala 74 more clear days than Jacksonville. "I cannot refrain," says Prof. Coomes, "from mentioning the fact that I am frequently told by men who ought to know better, that the vicinity of Ocala is a low, wet, and unhealthy place. I visited the town, and I can see nothing more about the place to make it unhealthy than I can about Palatka, St. Augustine, Gainesville, and a dozen other places; and yet, in the face of scientific demonstration, which gives a verdict contrary to theirs, these same men continue to make assertions, which, at least, must soon fall through for the want of support, but, I fear, not until they have done incalculable harm to thousands. If 309 days out of 365 are fair, how can it be possible for the climate to be wet? Such is the condition of Ocala."

"Malaria is the subject which enters into the description of all southern climes, and we unhesitatingly assert that Florida has been misrepresented in this respect. I speak from personal observation, experience, and extended inquiry, and I assert that the opinion entertained with regard to the prevalence of malaria during the cold months, is unfounded." I have quoted the foregoing statements of Dr. Kenworthy to reinforce them, if it were necessary, by my own knowledge derived from observation and experience, running through quite forty years of intimate acquaintance with the sanitary history of Florida. From November to June, inclusive, a visitor is as safe from attacks of malarial disease in Florida as in the Adirondacks.

In the centre of the county is the county seat, the beautiful city of Ocala, containing about 2500 inhabitants, and growing with marvellous rapidity. Since railroad facilities for transportation were furnished about four years ago, the population and business of the place have increased over 300 per cent.

Ocala is 173 feet above the level of the sea, 100 feet above Palatka, 150 above Jacksonville, and 160 above Fernandina and St. Augustine. Added to great natural advantages for health, business, and pleasure, she has as attractions, the largest and finest brick hotels in the State, with all that can be desired in the way of social, educational, and religious privileges. Ocala is surrounded by the richest land and the finest orange groves and vegetable farms in the State, while of easy access by a short drive and by railroad, is the world-renowned curiosity Silver Spring, whose crystal waters—through which a nickel can be distinctly seen at the depth of 65 feet—and weird surroundings, have long been celebrated.

TWO CASES OF UNILATERAL ŒDEMA OF THE LARYNX, DUE TO TRAUMATISM (BONE-SWALLOWING).

BY SOLOMON SOLIS-COHEN, A.M., M.D.,
CHIEF OF CLINIC, OUTPATIENT MEDICAL DEPARTMENT, JEFFERSON MEDICAL COLLEGE HOSPITAL.

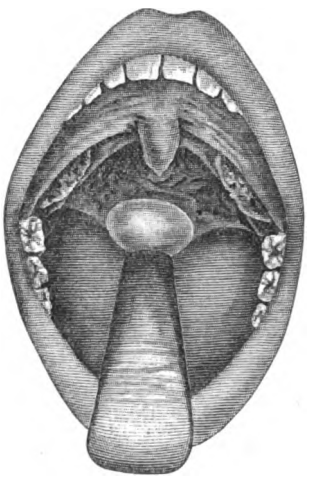
THE following cases seem to be of sufficient interest to warrant the publication of a brief report:

CASE I.—Sallie ——, a negress, aged 17 years, came to the throat department of the Philadelphia Polyclinic complaining of great distress in breathing, which had increased steadily since the preceding evening. A fish bone had "stuck in her throat" at supper, but she had succeeded in dislodging it with the finger, and believed that it had then passed into the stomach without further accident. She had no idea of the size of the bone, and did not know the name of the fish she had been eating. Dyspnœa developed soon after the accident, and at times severe paroxysms of suffocation occurred. There was not much pain.

At the time the patient applied for relief, some eighteen or twenty hours after the first symptoms were manifested, she was evidently in great distress. The voice was rough, hoarse, and muffled. Respiration was stridulous and labored. The lips were bluish, the countenance ashy and anxious.

On inspection of the throat, the œdematous epiglottis was seen projecting upward behind the tongue, as a roundish, tense, glistening, yellowish, bladder-like tumor (Fig. 1).

FIG. 1.



Laryngoscopic examination showed œdema of the epiglottic crest, with marked œdema of the arytenoepiglottic fold and arytenoid eminence of the left side, and very slight œdema of the right arytenoid eminence.

The epiglottis, and later the tumid structures on the left side of the larynx, were scarified by means of a curved bistoury wrapped with cotton to within about two lines of the point; and bleeding, which was rather scant, was encouraged by draughts of tepid water. A brisk hydragogue cathartic was ad-

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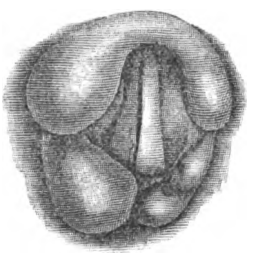
ministered. Iced cloths were ordered to be applied to the neck, and the patient was directed to allow small pieces of ice to melt in the mouth at frequent intervals.

The patient returned next day feeling much easier, though some œdematous tumefaction of the left arytenoid eminence persisted. No trace of the foreign body could be seen. Scarification was repeated, and the purgative medicine and cold applications were continued. The patient made two more visits to the clinic, and then disappeared from observation. As all local troubles, with the exception of congestion of the larynx, had also disappeared, it is to be presumed that she made a good recovery.

CASE II.—Daniel McC——, aged 42 years, laborer, attempted to gnaw the meat from a leg (?) of pork, and thinks that he got a small sliver of bone in his throat. At all events, he was seized soon afterwards with a violent pain in the throat, and a severe paroxysm of coughing. Towards evening, difficulty in breathing developed, and progressively increased. The right side of the neck became swollen, and tender to the touch. He was unable to sleep, and two or three times during the night, thought that he would choke to death. By morning, he had begun to feel easier, but still experienced difficulty in breathing, with paroxysms of intense dyspnœa. He applied to a physician in his neighborhood, who referred him to me.

I saw him about twenty-two hours after the probable date of the bone-swallowing. The voice was slightly hoarse, but distinct. There was very little distress in breathing. The right side of the neck was tender upon pressure, and slightly swollen from the margin of the thyroid cartilage to a little beyond the angle of the jaw. Laryngoscopic examination revealed the picture shown in the accompanying sketch

FIG. 2.



(Fig. 2).[1] The crest of the epiglottis, especially on the right side, the right aryteno-epiglottic fold, and right arytenoid eminence were moderately œdematous. The right ventricular wall, so far as could be seen, and the corresponding vocal band, both of which were in shadow from the overhanging tumefied epiglottis and ary-epiglottic fold, were of a deep red color. The left side of the epiglottic crest was slightly œdematous, but the other structures upon that side seemed perfectly normal. Careful search was made for the foreign body, but it could not be seen either in the larynx or surrounding spaces or tissues.

Scarification of the right side of the epiglottis, and afterwards of the right ary-epiglottic fold was practised by means of a laryngeal knife, unguarded; and a hasty movement of the patient on the second withdrawal of the instrument caused a superficial wound of the base of the tongue. Bleeding was quite free upon both occasions; the blood being dark and grumous. Cold applications and free purgation were advised, as in Case I.

The patient returned on the following evening, reporting that he had passed a quiet night and a comfortable day. The external swelling had subsided. The larynx was normal, save for a slight congestion of the right side. No trace of the foreign body could be discovered.

Remarks.—Although cases of unilateral œdema of the larynx are not often reported, it is believed that such instances as the foregoing, cannot be exceedingly rare; the two cases in question having been observed by the writer within the space of six months. The fact that the dyspnœa in both cases, and especially in Case II., was out of all proportion to the extent of the œdema, gives additional confirmation to the view[1] that spasm of the constrictor muscles of the larynx forms an integral part of the pathology of œdema of that organ. The cause of the œdema in both instances was probably a wound of the epiglottis, exactly comparable, as remarked by Charazac in his recent admirable and exhaustive thesis,[2] to the accidental experimental results of Bichat,[3] who, in the course of physiological investigations, produced œdema of the larynx by wounding the epiglottis of a dog.

HOSPITAL NOTES.

DISPENSARY FOR NERVOUS DISEASES, BALTIMORE.

Service of JOHN VAN BIBBER, M.D.

CLINICAL NOTES.

Brain Lesions in Adults following Parotiditis.

These cases occurred in private practice, but as they are comparatively rare, and as this class of cases would not probably apply to the dispensary for treatment, I give a short account of them as an interesting group, in connection with the previously reported cases of brain lesion consequent upon acute and serious abdominal symptoms.

Three Cases of Metastatic Insanity following Parotiditis.

J. F., age 20, in January had an attack of mumps, well marked, and from which he apparently recovered. Before, however, the swelling had entirely subsided, he was obliged to go out in bad weather. On returning

[1] I am indebted to Dr. M. J. Stern, of this city, for the transformation of my outline sketches to the graphic illustrations herewith presented.

[1] J. Solis-Cohen; Diseases of the Throat and Nasal Passages, 2d edition, p. 443, New York, 1879; International Encyclopædia of Surgery, vol. v. p. 648, New York, 1884: Gougenheim, Annales des maladies du Larynx, etc., July, 1883.

[2] Etude sur l' Œdème du Larynx, p. 25, Paris, 1885. Commenting upon Case I., of which he had been informed by private communication.

[3] Traité d' Anatomie Descriptive, tome ii. p. 404, Paris, 1819.

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home, on same evening, had pain and swelling in his testicles. For two days these symptoms increased, and on the third morning from date of exposure he developed decided delirium and hallucinations. Countenance suffused, pupils contracted, and sense of fulness in head. Temperature 102°. Under use of febrifuge and diuretic treatment, and hot applications to abdomen and parotid glands, the testicles slowly returned to normal size, but hallucinations and delirium continued with more or less violence for two weeks, when they began slowly to abate, and at end of a month the patient was entirely well.

M. W., aged 22, member of a religious institution, where her duty was to attend to the door. In March had an attack of parotiditis, and after going through the usual course of the disease, and the glands having been reduced in size, she returned to her occupation. After two days, she came back to the Infirmary complaining of headache and nausea. Under the circumstances it was impossible to determine whether the mammæ were swollen or painful, for delirium quickly developed and was marked and active. Face flushed, and temperature 101.05°. Hallucinations were incessant, and restlessness so great that it was very difficult to control her. Diuretic and febrifuge treatment was ordered, and hot applications to parotid glands and abdomen. Patient had a silly and vacant expression, laughed incessantly, and speech was incoherent. Insomnia and delirium continued for two weeks, during which time she took large quantities of potas. brom. After this period she gradually became quieter and more amenable to treatment, but the hallucinations continued for more than six weeks, when she began slowly to regain her mind, and at the end of two months had entirely recovered.

P. T., farmer, aged 26. In February, had an attack of mumps, and before the glands had entirely subsided he caught cold, and was much astonished the day following to find his testicles swollen and painful. Under treatment of the family physician this trouble was relieved; but while he was still confined to the house he became impressed with the idea that he could never get well, that he could not eat, etc. He soon developed a typical form of hypochondriacal melancholia, and was in this condition when I first saw him in May. He continued in this condition until the end of July, at which time he had entirely recovered and was able to resume his occupation.

Each of these patients showed a distinct type of insanity, proceeding from the same cause; and if such serious results are to be looked for as the possible sequel of parotiditis in the adult, the disease must be more carefully treated until recovery is completely established.

MEDICAL PROGRESS.

A COMPARATIVE STUDY OF THE EFFECTS OF DIFFERENT ALCOHOLIC BEVERAGES.—M. LANCEREAUX has presented before the Académie de Médecine (session of Nov. 17, 1885) an analysis of the "alcoholic" cases at present in the hospitals, and shows that they come chiefly from the departments in which wine is not produced. He would arrange the alcoholic beverages in the following order of increasing toxicity: cider, beer, wine, the liquors derived from grain, from potatoes, and from beet root.

He proposes the national adoption of the following measures:

1. Absolute liberty in the sale of cider, beer, and wine, on condition that they are of good quality and unadulterated.

2. Government supervision of the manufacture of spirits of all kinds, and the granting of prizes for methods of diminishing their ill-effects.

3. The imposition of the highest practicable tax upon spirituous drinks, and an insistence upon both good moral character and a severe license in the case of liquor dealers.

4. The punishment of those found in a state of intoxication, and the establishment of refuges for those who cannot refrain from the abuse of strong liquors.

BLISTERING BY CANTHARIDES.—DR. SQUIBB refers to the frequent apparent inefficiency of cantharidal preparations, especially in the summer, and advises, when any difficulty arises in this regard, that the skin should be carefully washed either with vinegar or with dilute acetic acid before applying the blister.—*Ephemeris*, November, 1885.

NEPHROTOMY AND NEPHROLITHOTOMY.—MR. BENNETT MAY presented before the Birmingham and Midland Counties Branch the notes of three cases of nephrotomy and nephrolithotomy, of which the following is a short abstract: Case 1. Youth, aged 20; symptoms well marked; duration, fourteen years; incision made into kidney; calculi removed; free hemorrhage, which stopped only on firm plugging; subsequent perinephritic suppuration; thrombosis; death from pyæmia in three weeks. Case 2. Male, aged 35; symptoms of ten years' duration; small stone detected in kidney by acupuncture; operation; stone removed through very small incision; another larger stone afterwards removed; rapid recovery; now able to do hard work; patient shown. Case 3. Female, aged 23; symptoms well marked; eighteen months' duration; six weeks before passed mulberry calculus *per urethram;* relief; subsequent relapse; operation; failure of palpation and acupuncture to discover stone; no stone found; rapid recovery, with relief of symptoms.

MR. LLOYD showed a calculus which he had removed eight days before from the kidney of a man, aged 20, through a lumbar incision. Symptoms had been present for four years, and had quite incapacitated the man from work. The patient had so far recovered as to be out of all danger. The urine was acid, normal in quantity, and contained only a few pus- and blood-corpuscles.—*British Medical Journal*, Oct. 31, 1885.

REMOVAL OF A LIPOMA OF THE MESENTERY, WEIGHING FIFTY-SEVEN POUNDS.—In September last, TERILLON presented before the Académie de Médecine a lipoma weighing fifty-seven pounds removed from a laborer aged thirty-seven. The tumor had been gradually increasing in size for the preceding three years. A large abdominal opening revealed a lobulated lipoma of the mesentery situated in front of the vertebral column and of the right iliac fossa. It was removed in one

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piece after a difficult decortication. The cut peritoneum was resected; eight catgut ligatures prevented hemorrhage, and twenty sutures of silver wire were required to close the abdominal wound. Two weeks after the operation the patient was fairly recovered, except for a persistent diarrhœa which prevented perfect alimentation.—*Bulletin Gén. de Thérap.*, 1885, No. 8.

CONGENITAL SYPHILIS.—NEUMANN, in an elaborate bibliographical and clinical study of congenital syphilis, reaches the following conclusions from the facts presented:

1. The usual opinions regarding the effects of syphilis of the father are confirmed.

2. Recent syphilis of the mother, at the time of conception, induces disease of marked intensity in the product of conception.

3. The longer the duration of the syphilis of the mother the less is the danger for the progeny, and the more favorable is the action of specific treatment.

4. Tertiary syphilis, on the part of the mother, has no direct influence upon the power of conception, impairment of this function existing only as a result of gummata of the uterus or ovaries.

5. Syphilis acquired after conception is rarely shared by the product; immunity from such transmission, however, does not exist. The period of pregnancy in which syphilis is acquired does not appear to affect the frequency of transmission to offspring. Syphilis acquired after conception is more dangerous for the subsequent offspring than for the fœtus at that time *in utero*.

6. The possibility, but not the certainty of transmission of syphilis from the fœtus to the mother (*choc en retour*) is admitted. No data have been obtained as to the month of pregnancy in which this occurs.

7. Hereditary syphilis is highly contagious for every one except the mother.

8. No absolute laws of inheritance of syphilis can yet be formulated.—*Wien. med. Jahrb.*, 1885, Hefte ii., iii., p. 286.

TWO SUCCESSFUL CASES OF CHOLECYSTOTOMY.—After reference to the paper by Lawson Tait on the surgical treatment of gall-stones, and to the thirty-five cases of cholecystotomy recorded by Drs. Musser and Keen, MR. A. W. MAYO ROBSON presented before the Clinical Society of London a report of two successful cases of cholecystotomy.

In the first case, Mr. Robson was consulted in June, 1884, by Mrs. B., aged thirty-three, on account of a tumor of the size of a hen's egg; it caused dragging pain and uneasiness, but there had never been any jaundice. It was then diagnosed as a distended gall-bladder, but consent to operate was not obtained until June 21, 1885, when, the tumor having greatly increased in size, with augmentation of the discomfort, cholecystotomy was performed, and eight facetted gall-stones were removed from the cystic duct. They varied from the size of a pea to that of a large bean, and were of a dark brown color. The gall-bladder contained nearly half a pint of clear watery fluid, which was removed by an aspirator before the cyst was opened. Peritoneum was then sutured to peritoneum, and mucous membrane to skin, and the rest of the wound was closed by catgut sutures, a drainage-tube being inserted into the gall-bladder. Recovery was uninterrupted, union occurring by first intention, and the patient being able to go for a drive on the seventeenth day. A minute fistula remained in September, just capable of admitting a small probe. It discharged a little thin mucus, but gave no inconvenience. The patient was feeling well in every respect, having gained in strength and weight. The second case was that of a German governess, aged twenty-two, who was admitted into the Leeds Infirmary, under the care of Dr. Churton, in February, 1885. There were vomiting after all food, a history of prolonged constipation, and a tumor in the position of the hepatic flexure of the colon, the size of which was unaffected by many large enemata; the vomiting continued. It being then suspected that the tumor was a distended gall-bladder, the patient was transferred to Mr. Robson, who performed cholecystotomy, removing numerous small white calculi, and eight ounces of clear fluid. The steps of the operation were exactly the same as in the first case, and in both the finger was passed inside the peritoneum, along the cystic duct, in order to be sure that no calculi were left to cause a block in the passage. After the operation, the vomiting absolutely ceased, and recovery was uninterrupted, the pulse and temperature being normal throughout, and the wound healing by first intention. The fistula discharged a clear mucous fluid for a time, but on September 15th had completely closed. It, however, reopened in October, and again discharged the same kind of fluid, the patient experiencing no discomfort or pain, and feeling absolutely well in every respect.—*Brit. Med. Journ.*, Oct. 31, 1885.

CUTANEOUS ANODYNE.—DR. R. G. GOUCH, in *The Virginia Medical Monthly*, recommends the following prescription as one of the best he has ever found as a lotion for itching cutaneous surfaces, whether the skin is broken or not. He has used it with invariable success, and it has now become a popular application with the local physicians:

℞.—Sodæ biborat.	. . . .	ʒj
Acid. carbol.	. . . .	gtt. xv.
Glycerin	. . . . .	ʒj.—M.

Sig. Apply as lotion with camel's-hair brush, or by dropping from bottle on the itching surfaces.—*Canadian Practitioner*, Dec. 1885.

THE DISINFECTION OF THE HANDS.—FORSTER, of Amsterdam, has made an experimental investigation of the comparative values of different methods of rendering sterile the bacterial dust which is always present on the hands. All the known disinfectants were used, and the so purified finger was dipped in sterilized neutral beef-juice peptone solution.

With one exception, the development in the culture media of fungi, in from twenty-four to sixty hours, was not prevented by the treatment of the finger. Even washing with two and a half per cent. carbolic acid solution was inefficacious. Corrosive sublimate solutions alone, of a strength of from half to one part in one thousand, were found to be of use; and the finger thus treated, when dipped in the most sensitive culture media induced therein no fungous growth.—*Centralb. f. Gynäk.*, Nov. 21, 1885.

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SATURDAY, DECEMBER 19, 1885.

THE PRIMARY MUSCULAR ATROPHIES.

THE mutual relations of the various affections characterized by progressive atrophy of the muscles are very clearly set forth in communications by CHARCOT, in *Le Progrès Médical*, No. 10, 1885, and by his pupils MARIE and GUINON, in *Revue de Médecine*, October, 1885. Two essentially distinct groups of cases are recognized, first, the spinal myopathies, in which the lesion is in the cord; and second, the primary myopathies, in which the lesion is entirely muscular, and the central nervous system is unaffected. Of the former group there are two fundamental divisions, the *amyotrophic lateral sclerosis*, in which the lesion of the gray matter inducing the atrophy is secondary to various conditions, such as diffuse myelitis, tumors, and multiple sclerosis; and, the chronic myelitis of the anterior horns, *poliomyelitis anterior chronica*, which is known clinically as progressive muscular atrophy. The second group embraces at least three diseases, pseudo-hypertrophic paralysis, Erb's juvenile form of progressive muscular atrophy, and the hereditary infantile form of Duchenne; and a successful attempt is made to show that they are not separate affections, but merely different clinical forms of one and the same disease, for which the designation *myopathie progressive primitive*, is suggested.

In pseudo-hypertrophic paralysis, the enlargement of the muscles is spurious and the process is, in reality, an atrophic sclerosis, in which the increased size is due to connective tissue and fat. The lesion is entirely muscular, and Charcot protests against the assumption by some writers, at this period in the history of the disease, that the affection is of spinal origin. Duchenne observed that the hypertrophied muscles might finally become wasted, but atrophy of certain groups of muscles may coexist with pseudo-hypertrophy in others, or the disease, as in Goodridge's cases, may begin with wasting of the muscles of the shoulders and arms, and be followed by pseudo-hypertrophy of the calf muscles. Upon this feature of the disease authors have scarcely laid sufficient stress, but Marie and Guinon rightly deem it of great importance in studying its relations to other atrophies. The muscles of the shoulder-girdle and the biceps are most frequently involved in this primary atrophy. It is well known that the increase in volume of the muscle does not bear any special proportion to the loss of power; indeed, the functional weakness may precede, for some time, the pseudo-hypertrophy, or it may be the most striking characteristic, as Charcot has shown in a remarkable case with all the features of pseudo-hypertrophic paralysis without any augmentation or diminution in the volume of the muscles. A lad, aged eleven, presented the typical position in standing and in walking, and in behavior on raising himself from the recumbent posture, and yet the muscles appeared of normal size—neither atrophied nor hypertrophied.

The juvenile form of progressive muscular atrophy described by Erb is characterized by atrophy and feebleness of certain groups of muscles, particularly those of the shoulder-girdle, the upper arms, the pelvis, the thighs, and the back. It begins in infancy or adolescence, and progresses slowly with or without interruptions. The atrophy is often combined with true or false hypertrophy of certain muscles; there are no fibrillar tremors, and the affected muscles do not present the reaction of degeneration. The muscles of the forearms, with the exception of the long supinators and those of the hands, generally remain unaffected. The leg muscles also, with the exception of the tibiales antici and peronei, are usually spared. This form has hitherto been confounded with the progressive muscular atrophy of special origin, due to chronic poliomyelitis, but it is distinguished from it by the mode of invasion, the age affected —usually under twenty—the absence of fibrillar tremors, the electrical condition of the muscles, and, finally, the absence of lesions in the cord. Erb regards the affection as a myopathy, and its immediate relations are evidently with pseudo-hypertrophic paralysis, which it resembles also in attacking several members of the same family.

In 1865 Duchenne described a hereditary infantile form of progressive muscular atrophy, which was characterized by its onset at an early age, and by the commencement of the atrophy in the facial muscles. He had seen as many as twenty cases, but apparently little attention has been paid to it, and some authors have doubted its existence as a distinct form.

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The clinical features, as drawn by Charcot and his pupils, are briefly as follows: The affection often begins in infancy, but it may not come on until adolescence or even until middle or advanced age; it is very often hereditary; the face muscles are first involved, particularly the orbicularis oris, and there is a peculiar expression of the countenance; whistling is impossible, and the articulation of labials is difficult; the eyes cannot be completely closed, and the eyebrows cannot be raised. Subsequently, other muscles become involved, particularly those of the shoulder-girdle—except the deltoid—and arm, the long supinators of the forearm, and in the lower extremities the muscles of the buttocks, thighs, and of the antero-external aspect of the leg. The muscles of the hands and fingers are spared. Fibrillar tremors are not observed, and there is no reaction of degeneration. The distribution of the atrophy is almost identical with Erb's form, except that the trouble begins in the face. That this is a myopathic and not a spinal affection, is conclusively shown by a recent autopsy of a typical case, in which the cord and peripheral nerves were found to be normal.

Charcot also holds that this form is also closely related to pseudo-hypertrophic paralysis, and quotes in support an observation of Zimmerlin, in which two children of a family presented the juvenile form of Erb, while, in a third, the affection began with atrophy of the facial muscles, and there was pseudo-hypertrophy of the muscles of the legs.

With Charcot, then, we may regard these affections as different forms of one and the same disease —a primitive progressive myopathy, the lesion being an interstitial myositis with variable production of adipose tissue and occasionally hypertrophy of individual muscle fibres. Clinically they present certain differences by which the varieties may be recognized, but there are intermediate forms which serve to show the essential unity of the disease. All three are hereditary maladies, or rather family diseases, occurring in several members of the same family.

It seems probable also that Thomsen's disease is another myopathic affection closely related to hypertrophic paralysis. This curious hereditary or family malady is characterized by a remarkable stiffness or spasm in the muscles on first attempting to perform voluntary movements. Vigouroux has recorded a case with pseudo-hypertrophy of the muscles, and Erb has recently described definite changes in the muscles in two cases under his care.

COLECTOMY.

IN the *Allgemeine Wiener med. Zeitung*, Nos. 41, 42, and 43, 1885, may be found an account of a unique case of cicatricial stricture of the ileocœcal valve, in which CARL MAYDL afforded temporary relief by enterotomy, and subsequently effected a radical cure by excision of the coarctation.

The patient, a woman, twenty-four years of age, had suffered with symptoms of ileus for two weeks, and a nodular, tolerably firm, and rather freely mobile tumor, as large as the first, was detected just below the right kidney, when the subject was placed in the knee and elbow position. Obstruction at the point of junction of the ileum with the cæcum was diagnosticated, but its true nature could not be determined. On the 31st of January, 1884, the belly was opened in the anterior axillary line, and an artificial anus was established by stitching the ileum to the abdominal wall. The patient recovered and gained flesh and strength, but being dissatisfied with her condition, Maydl, on the 7th of March, 1885, removed the portion of the small intestine which included the fecal fistula, as well as the part of the cœcum which was strictured, and reunited the ileum to the large intestine by many points of the Czerny-Lembert suture. At the expiration of four weeks the recovery was complete, and the woman now enjoys excellent health.

Resection of the intestine in any portion of its extent for fibrous stricture has, so far as we know, been performed in only three instances. In the *Centralblatt für Chirurgie*, 1881, Koeberlé records a case of multiple coarctation, in which he successfully removed more than six feet of the small intestine; and Novaro has reported in the *Giornale dell' Academia di Med. di Torino*, 1881, a case in which he extirpated nearly four inches of the ileum for a single stricture, with recovery. The third case is that of Maydl, and it is the only one in which a portion of the large intestine has been excised for a benign stricture.

In connection with this case it is interesting to note that the large intestine has been extirpated, sutured, and returned into the belly in at least 25 additional instances. Of the 26, 12 recovered and 14 died. For carcinoma, colectomy has been done 20 times; and of these, 9 were successful, and 11 fatal. For gangrenous hernia, 2 cases show 2 deaths. For prolapse of the sigmoid flexure through an artificial anus, Czerny had 1 recovery; while for prolapse through the normal anus, the patient of Auffret died, while that of Mikulicz recovered.

As we have seen, colectomy with enterorrhaphy and suture of the bowel for carcinoma has been attended with a mortality of 55 per cent., and, for obvious reasons, it would appear as if the operation ought to be more dangerous than mere excision of the neoplasm, with the formation of an artificial anus. Such, however, is not the fact, since of 8 examples of the latter operation of which we have notes, 5, or 62.5 per cent., perished. Hence, so far as the limited number of operations entitles us to frame an opinion, the

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former, although the more tedious, and requiring greater attention to details, is the preferable procedure. So far, however, as the final result is concerned, there is little to be said in favor of either operation, as we are not aware of a single instance of permanent recovery, recurrence of the disease having been the invariable rule in all the cases that we have able to follow.

NATIONAL SANITARY LEGISLATION.

WHILE it seems to be the almost universal opinion among sanitarians, and especially among sanitary officials, that it is highly desirable that the general Government should do something more than it is now doing for the protection of the public health, and, in particular, that Congress should provide for some kind of a department, or board, or bureau, to look after the interests of the public health, it must be confessed that there is not enough unanimity as to the form which such legislation should take, to make us feel very hopeful as to the probability of any action by Congress at the present session.

At the Conference of State Boards of Health, held at Washington last week, the subject of federal legislation on sanitary matters received a good deal of consideration, but it was evident that the difficulties in the way seemed very formidable to those most familiar with the matter; and that while there was substantial agreement as to many of the things which a National Health Department should have charge of, or do, there was very great divergence of opinion as to the particular form of such organization which it would be expedient to urge upon Congress.

The great majority were of the opinion that it is useless to attempt to rehabilitate the present National Board of Health. Some favored the idea of a National Board to be composed of representatives from State Boards of Health, etc., as embodied in the bill presented to Congress by the last Conference. Others preferred the creation of a Bureau with a Commissioner of Health—analogous to the Bureau of Education or of Agriculture, and to be attached to either the State Department or the Department of the Interior. One difficulty in the organization of such a Bureau is that its work includes matters pertaining to the duties of three different Departments, and, therefore, harmonious action between these Departments is necessary to insure success. For example, the business of collecting information as to the sanitary condition of foreign ports, and of vessels sailing from them to the United States, should be done by officers of the Department of State. Matters pertaining to the collection of vital statistics in this country, to local epidemics, and to biological and chemical investigations, pertain more especially to the Department of the Interior, while matters pertaining to quarantine at United States ports, belong to the business of the Treasury Department.

It will be seen that the view which one takes as to what should be the predominant function of the National Health Bureau, will greatly influence his opinion as to what particular department should control and be responsible for it. It seems probable that it would be easier to obtain from Congress the necessary legislation for the creation of a Health Bureau under the Department of the Interior, than for the rehabilitation of the National Board or the creation of a new board, and that it is best to concentrate effort in this direction. It appears, moreover, that the less such a Bureau has to do with quarantine operations at United States ports the better, at all events for the present.

The field of work for such a Bureau is certainly wide enough without the quarantine business. Unfortunately, there are a number of persons whose voices are influential in this matter who think that quarantine work should be the chief business of such a Bureau, and that, in fact, the Bureau should not be created unless it is to assume these duties. It is this feeling, taken in conjunction with the opposition of the present National Board to any measure looking to its supersession, and the opposition of the Treasury Department and the Marine-Hospital Service to anything which might deprive it of its patronage, that the chief obstacles to National legislation on public health matters arise. We do not think that these obstacles will prove to be very formidable when they are once fairly recognized and understood by the people.

NERVE SUTURE, WITH IMMEDIATE RESTORATION OF FUNCTION.

ONE of the most remarkable results of the suture of a nerve ever reported is given by SURMAY, in the *Archives Gèn. de Médecine*, for Oct. 1885. The case was that of a man who had received a cut above the wrist, resulting in abolition of the function of the median nerve. For some time no attempt had been made to correct the defect. Then electricity was tried without result. Six months after the accident, Surmay resected about three-quarters of an inch of the nerve, and joined the cut ends with a fine carbolized catgut thread, which had been ingeniously inserted before the intermediate portion was cut out. The function of the nerve was reëstablished within twenty-four hours! The parts which had before been affected—the second phalanx of the thumb and the two terminal phalanges of the index and middle fingers—were found to have wholly recovered their general and tactile sensibility; while the sensibility to pain and temperature had returned in the thumb and in the upper half of the phalanges of the other fingers

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involved. Complete restoration followed after several months.

This remarkable case furnishes a strong support to operative interference in other cases than those in which loss of function results from traumatic division of a nerve; for in this one the nerve was not found divided, but the part under the wound was occupied by an enlargement which was formed by pure hypertrophy of the neurilemma. It is always surprising that the cicatricial changes which must take place in, or immediately adjacent to, a resected nerve, should have so little effect in disturbing the result of the operation. In the case mentioned, it seems to have had some disturbing influence, although this passed off with time. Further, this case is interesting as raising questions in physiology which will bear close study, namely, as to the reinstatement of one part of the function of a nerve while another remains in abeyance, as well as in regard to the relation of the different forms of sensation, which are commonly divided into: common sensation or sensation of pain, and the tactile sense, which includes appreciation of changes in temperature. As Surmay's case seems to have been studied with great care, and to present many of the conditions of scientific accuracy, it may contribute materially to our knowledge of the physiology of the nerves.

SOCIETY PROCEEDINGS.

THE AMERICAN PUBLIC HEALTH ASSOCIATION.

Thirteenth Annual Meeting, held at Washington, D. C., December 8, 9, 10, and 11, 1885.

(Specially reported for THE MEDICAL NEWS.)

TUESDAY, DECEMBER 8TH.—FIRST DAY.

THE Thirteenth Annual Session was called to order by THE PRESIDENT, DR. J. E. REEVES, of Wheeling, at 10 o'clock.

THE TREASURER'S REPORT.

DR. J. BERRIEN LINDSLEY read his report, showing expenditures amounting to $2232, and a balance on hand of $1105. The report was accepted.

DR. ROHÉ presented the

REPORTS OF THE COMMITTEE ON DISINFECTANTS,

and asked the Executive Committee to fix an hour on Thursday, when its discussion can take place.

DR. EZRA M. HUNT, Secretary of the State Board of Health of New Jersey, then read a paper on

SANITARY AND STATISTICAL NOMENCLATURE,

in which he discussed the various terms now used in sanitary, statistical, and parasitical nomenclature.

DR. JOHN S. BILLINGS, U. S. A., then presented a paper on

FORMS OF TABLES OF VITAL STATISTICS.

After discussing different forms now in use, he proceeded to explain what should be included in or rejected from such tables. Vital statistics are furnished to the public through the press, and he urged that it is the wisest course for the health officer to furnish full and accurate reports of prevailing sickness and deaths every week, so far as he had the reliable data for so doing, thus avoiding the responsibility of concealment. He said that there are several sources of information with regard to the amount and character of disease prevailing in a city, of which the health officer can avail himself, and which are too much neglected. There are the public dispensaries and other similar institutions, including the city physicians to the poor, the prisons, reformatories, and asylums, and the public schools. From all of such institutions supported by public funds, he should be able to obtain reports showing the amount and character of the diseases coming under their notice. Attention was called to the importance of using graphic representations of the results of studies of vital statistics, to be given in the form of diagrams and shaded maps. He exhibited large diagrams of a proposed form of tables.

DR. HENRY B. BAKER, Secretary of the State Board of Health, Lansing, Mich., read a paper on

THE RELATION OF RAINFALL AND WATER SUPPLY TO CHOLERA,

in which he showed that cholera always increased during the dry season, and decreased after an abundant fall of rain. He presented tables in support of his statements.

DR. D. E. SALMON, D.V.S., of Washington, D. C., then read a paper on

THE VIRUS OF HOG CHOLERA,

in which he stated that during the present year the ravages of hog cholera had been unusually severe, costing the country nearly $30,000,000. The disposition of the carcasses of animals which have died of this disease is a matter which affects the health of our people. Sometimes, carcasses are left to putrefy, or to be preyed upon by carrion birds, or animals; and sometimes they are thrown into the ponds and streams which furnish our drinking water. Sometimes they are rendered into lard, and what becomes of this product is an interesting subject for speculation. Only exceptionally are they burned or buried. The study of the virus is of peculiar interest to us at this time, because of its bearing upon the general subject of contagion. The science which treats of this important class of phenomena is still in its infancy, but experiments are in progress which will undoubtedly result in decreasing the disease. He gave the results of a number of experiments in inoculation with Pasteur's virus, some of which were successful while others failed.

DR. HUNT inquired whether the investigation made by the Bureau of Animal Industry has lead to the conclusion arrived at by Klein,—that it is the same form of microbe that he states is the cause of cholera.

DR. SALMON stated that the organism Klein described in his last paper, from its form, appeared to be very similar, if not identical with, the one he is working with, and he was struck by the fact that Klein stated that the germ with which he experimented had no effect on pigeons. Dr. Salmon had inoculated two pigeons with the virus in question. One of these died and the

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other is very sick. The germ he is experimenting with appears to be identical with the one which Pasteur describes in France, and it may be identical with the one Klein has described, and he may possibly be mistaken as to its effect on pigeons. As far as the form goes, it may well pass for the germ he is now working with.

DR. REED said that this paper is an argument in favor of more definite practical action in every State of the United States, for the protection of the people against this disease. There should be inspectors appointed to visit the slaughter houses and inspect the swine or other animals liable to this disease, and see that infected animals are not killed and placed in the market. He thought it highly necessary that our State boards of health should take such action as is essential to prevent the killing of these animals, and the spread or possible spread of these diseases among the people.

DR. SALMON said there was one point of which he would like to speak again, that is, the relation of swine plague to human life. He did not think that swine plague can be transmitted to human beings. It has been investigated by a great number of people who have been exposed to the virus in all kinds of ways, and he had made many post-mortem examinations himself when he had wounds on his hands, and when if there was such a thing as being infected he would have been infected, but he had never felt any dangerous results whatever, and that has been the experience of all others who have investigated the disease. The danger, it seems to him, arising from it is rather from complications. We know that in typhoid fever of all kinds there are formed chemical substances the exact nature of which has not yet been determined, and they seem to vary a great deal among themselves. Now we have never been able to find out up to this time whether or not in the cooking of the meat the injurious matter is destroyed, or whether it still remains in the flesh, but it seemed to him that perhaps some of the obscure diseases met with in daily practice, and to which it is almost impossible to assign any cause, may be produced by eating flesh of this kind. He thought the experience of almost all health boards would bear him out in saying that the flesh of feverish animals is likely to produce disorders of the digestive tract which are very difficult to treat, and which cause great mortality at certain seasons of the year. It is rather to this class of diseases that he desired to call the attention of the Association, and it seemed to him that the best way of combating this danger is for local boards of health to call attention to the matter, and to do all they can to prevent the killing and packing of hogs which are in any stage of disease.

He hoped this winter to get additional power for the Bureau of Animal Industry which will enable him to do something toward checking this disease and limiting the amount of it in the country. He will do all he can in this direction, and must rely on the local boards of health to protect the people.

He thinks a swine plague is a contagious disease which arises only from contagion from infected animals, just as smallpox arises from contagion with the person infected with it.

DR. BRYCE said that this matter interested him very much, especially the suggestion that legislation on the subject be urged by this Association, in order that hogs may be inspected, and that whenever an epidemic breaks out some more stringent measures be adopted than exist at present. He spoke feelingly on the subject, he said, from the fact that while it is true that Canada is at present under the accusation of having brought smallpox into certain parts of the Union, the United States lies under the accusation of having transmitted to the Province of Ontario an epidemic of hog cholera during the past season. The history of it apparently is that hogs sick with the disease were carried down the St. Clair River and washed up on the shores of one of our counties, and in the county of Essex the disease spread some five months ago so widely that the Provincial Government, and along with it the Dominion Government, took extended precautions, under their epidemic act regarding animal diseases, to limit the disease. If his recollection served him right, 150,000 hogs have either died from the disease or been slaughtered in consequence of its existence. It seemed to him a peculiarly appropriate subject for this Association to discuss. Dr. Salmon has discussed it. Dr. Bryce thought that some method for both isolation and prevention should be urged upon the legislatures of this country, and the same legislation, he was sure, would be carried out as far as possible in Canada.

DR. REED offered a resolution urging national, State, and municipal legislation for the protection of citizens from the sale of diseased meats by proper legalized authority.

DR. RAYMOND hoped we will not overlook other diseases of animals. While hog cholera is undoubtedly injurious to animals, as Dr. Salmon has said, it has never been proved that it can be propagated to human beings or contracted by them. We have, on the other hand, a number of diseases which are contracted by human beings from animals. He trusted we would not forget that most important of all diseases, tuberculosis of cattle, and this Association can do no better work than make a recommendation on the subject in this connection to boards of health or inspectors —recommending not that they simply inspect in a superficial manner, visiting slaughter-houses for inspection not after the carcasses are prepared for inspection, but inspect them before such preparation is made. Thousands of carcasses are put on the market in this way when they would have been rejected had they been inspected beforehand by the officer. No man can judge intelligently of a carcass simply from its appearance, except in rare cases. Thousands of carcasses of animals which have died from pleuro-pneumonia and other diseases, have been passed by inspectors who gave their attention only to the carcass itself. He thought the medical profession has been largely benefited by the work done by veterinary surgeons, and in his judgment no board of health is established on a proper basis unless it has upon its staff a competent, educated veterinary, whose duty it shall be to inspect animals in the process of being slaughtered when the viscera can be examined and any disease thus be detected,

DR. JAMES desired to bring out one point. In certain localities and at certain times, with hog cholera prevailing, it is also known that the chicken cholera seems to rush along in a close circuit with it. He would like to know to what extent; and when chickens feed upon the remains from the poisoned animals, how far the

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disease is carried to these chickens. Has that point been brought out by the investigation?

DR. SALMON said that he had made a number of experiments from which he hoped to determine that point. So far, it has not been worked up with any satisfactory results.

MR. BROOKS said that this is a commercial question as well as a question of health. What Dr. Raymond has said in regard to cattle is essentially important, quite as important as what has been said in regard to cholera of hogs. Only those who take an interest in public affairs abroad as well as affairs at home, realize how much this country has suffered within the few years past from a resistance on the part of the German Government, and especially on the part of the German Prime Minister, who is practically more the government than the Emperor himself, to the sending of cattle and hogs to Europe from our own country. This opposition is defended upon the ground of the effect on the health of the people, both of France and of Germany, and concerns the export of cattle in an improper condition, either in regard to the animals themselves before they are killed, or in regard to the manner of packing them. This resistance has attracted the attention of our government and become a subject of great commercial importance to farmers, to producers, and to the country at large.

It, therefore, seems an eminently proper thing for the American Public Health Association, interested as it is in everything which pertains to health, to take some practical notice as is proposed in regard to the results before it. He, therefore, would most heartily second any motion made to investigate further and report on this subject.

THE PRESIDENT called attention to the fact that there are many diseases in this country which are called hog cholera, but which are as unlike as smallpox and measles. If Klein is as honest as he is capable, we must conclude that the hog cholera which we know in this country, the specific contagion of which Lehman claims to be a micrococcus, and the disease produced by a specific germ cultivated and known as Klein's bacillus, are two different things, and both cannot be right. There must, therefore, be some doubt as to the two diseases. Dr. Reeves is inclined to think that the two diseases are different; that the hog cholera known in this country is not the hog cholera cultivated by Klein.

EVENING SESSION.

DR. J. M. TONER, of Washington, delivered an

ADDRESS OF WELCOME.

He prefaced his remarks by saying that it had been hoped to have the presence of the President, but that he had received the following autograph letter from him:

EXECUTIVE MANSION,
WASHINGTON, Dec. 7, 1885.

DR. J. M. TONER:

MY DEAR SIR: I am sorry that the condition of the public business is such that I cannot accept the invitation which you kindly tendered me on behalf of the American Public Health Association, to attend its annual meeting to-morrow evening.

I beg to assure you that my expression of regret is not merely formal, but actually indicates a sense of deprivation which attends an inability to give by my presence, as requested, the fullest endorsement of the objects and purposes as well as the work of the Association.

Surely the advancement of sanitary science and its practical application to the public health, are of immense importance to the people of our land. Of course, the value of efforts in the direction of a better understanding of the causes of disease, and protection against the same, is too palpable for suggestion or argument. But I do not think the advantages of an improvement in the condition and sanitary surroundings of the homes of our workingmen, and of the poor among us, are sufficiently appreciated. Healthful and comfortable habitations indicate the best features of a country's prosperity and advancement, and men with good health and wholesome surroundings are apt to be contented and useful citizens.

The difference in the death-rate of cities and localities, unexplained by natural and inherent causes, is of itself enough to give great prominence to the work of the Association, and if this beneficent organization shall succeed, as it ought, in impressing upon municipalities the duty of sensible and thorough sewerage, a plentiful and pure supply of water, and general cleanliness, together with a proper construction of school-buildings for the children of their citizens, it may well point with pride to its achievements.

With the hope that the Association may be the means of constantly increasing benefit to the country, and with expressions of heartiest sympathy with its work.

I am, yours sincerely,

GROVER CLEVELAND.

President Cleveland was then unanimously elected an honorary member of the Association. He is the first citizen upon whom this honor has been conferred.

COMMISSIONER EDWARDS, of the District of Columbia, followed with a few well-chosen words, and bid the Association welcome to the city in the name of the citizens of the District and of its government. He took occasion to say that it was not necessary to tender them the freedom of the city; for in this, the capital of a great nation, it was the birthright of every American citizen.

THE PRESIDENT then delivered his

ANNUAL ADDRESS.

He paid a high compliment to the local Committee of Reception for their excellent programme of arrangements. He said that every assembly, such as the one he addressed, moves forward another day's journey the ark of the sanitary covenant. Humanity is bettered and made happier thereby. In these days of political struggles and diverse interests, we hear much of the various means for the advancement and protection of the manufacturing, mercantile, agricultural interests, and many others of less extended importance. But what question of mere business interest can compare, either in importance or extent, with the general and individual interest which every man has in life and health. The national legislation is liberal in many matters, and ought to be equally liberal in providing for the public health. We are to-day at the very threshold of great possibilities in preventive medicine, and the central government should foster every effort for the success of the work in

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which sanitarians are so heartily engaged. He urged that a national biological laboratory should be established at the national capital to aid in the study of contagious and infectious diseases, and hoped the present Congress would be influenced to establish a health bureau which would be a blessing to the whole country.

(To be continued.)

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, December 1, 1885.

THE PRESIDENT, W. R. BIRDSALL, M.D., IN THE CHAIR.

DR. WM. A. HAMMOND read a paper on

UNILATERAL HALLUCINATIONS.

The fact that hallucinations of sight and of hearing may be unilateral—that is, discerned by one visual or auditory centre only—has long been known, though it has not, even at this day, attracted the degree of attention which Dr. Hammond believes that it deserves. Several authors have considered the matter from a more or less philosophical standpoint, and have brought forward interesting cases in support of their views. The first reference to the fact that hallucinations may be one-sided, which had come under his notice, was made by Calmet, it being a case of hallucination coming from the left ear. Baillarger cited two cases of hallucinations of hearing occurring in but one ear. Other writers who had contributed to the subject, and cited by Dr. Hammond, were Michea, Schroeder von der Kolk, Alexander Robertson, E. Regis, and Dumontpallier. Erroneous impressions, of different character, occurring on either side, had received attention at the Medical Congress at Rouen in 1883.

Dr. Hammond then gave the histories of several cases of unilateral hallucinations which had come under his own observation. The first was that of a gentleman in good general health, who contracted the illusion that the ticking of a clock on the mantlepiece consisted of articulate words; after a time it sounded like human speech, and appeared to give commands, such as not to eat of soup, not to drink wine, etc. It was learned that these illusions came only through the left ear, and never through the right; but hearing in other respects was not the least impaired in either ear. The patient did not allow himself to be deceived into the idea of accepting these commands as realities; yet he was influenced by them in his actions. This case, and the one next mentioned, are referred to in Dr. Hammond's work on insanity.

Case II.—A young lady, of good mental development, but of delicate physical organization, was for several months almost constantly troubled with apparitions of various kinds of faces. A few weeks before they first appeared she had looked at engravings of Greek and Roman masks, which had made a strong impression upon her. If she closed either eye, about half of the faces would disappear; and if she closed both eyes, all would disappear, but would return again in a little while, although less distinctly. By imitating the experiment of Sir David Brewster—pressing on the outside of the globe of either eye so as to produce temporary strabismus—the patient could make any face appear double which had been visible for several minutes. There was no impairment of vision of any other kind, and no abnormal ophthalmoscopical appearances. The peculiar features of this case were, that the images in question were divided between the two eyes, part being seen in the one and part in the other, showing, therefore, the distinctness and divisibility of the action of the two visual centres, and the fact that the stimulus of a strong light was necessary in order that they should be developed.

Case III.—A young man received a blow just above the left ear. A few weeks subsequently, while engaged as a salesman, he saw a large black cat sitting on the floor immediately before him. He had no doubt of the reality of the occurrence, until he walked toward the animal, when it receded as far as it was when he first saw it. After this the cat seemed to follow him wherever he went, but his sense of touch was never deceived. The image was largest and most distinct in the evening, and during the paroxysms of pain at the seat of the injury on the head, which returned several times a day. He discovered, on shutting the eyes alternately, that the vision occurred only on the side corresponding to the injury. There were no abnormal ophthalmoscopical appearances nor disturbances of vision in other respects than that mentioned. That there was serious brain lesion, involving probably the left optic thalamus, Dr. Hammond said he had no doubt. He had also been of opinion that there was fracture of the inner table of the skull at the point at which the blow had been received, and he proposed trephining, which was not consented to.

Case IV.—A lady, about 50 years of age, became the subject of most malignant persecution through anonymous letters, the sender of which she did not know. While thinking of who the person could be that sent the anonymous letters, she happened to look out on the bay window and saw a man and woman standing in the opening. For a moment she did not doubt the reality of the appearance; but, when she arose, they gradually faded from view. Afterward they reappeared several times in the month, and finally ceased to appear altogether. The interesting feature of the case was that the man was always seen with the right eye, and the woman with the left. If she closed the right eye, she saw only the woman; but, if she closed the left eye, she would see only the man. The vision could be brought on by lying down, with the head low. Dr. Hammond thought that nothing could be more confirmatory of the idea of the independent action of the two visual centres than such hallucinations; indeed, he thought they are strong evidence of the duality of the brain. None of the cases which Dr. Hammond had cited went to support the view that unilateral hallucinations are due to disease or derangement of the brain of special sense involved. Indeed, it is difficult to conceive what connection can exist between disease of the eyes or ears and a hallucination existing in the corresponding side; for, if such disease causes a unilateral hallucination, we should expect bilateral hallucinations to be the result of disease of both eyes or ears. Dr. Hammond thought hallucinations are produced by disease or disorder of the central organ of perception, probably of the optic thalamus, and that such erroneous sensorial impressions, when limited to one side, are evidence that the visual,

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auditory, or other sensorial centre of the corresponding side, is the starting-point.

DR. LEONARD WEBER related a case which he thought would interest Dr. Hammond as going to support the view which he seemed to entertain, that unilateral hallucinations are not associated with disease of the special sense concerned, but with an affection of central origin. The man came under his observation in 1879, at which time he was thirty-seven years of age, strong, healthy, very active in business, but in consequence of domestic trouble and mental strain he began to lose sleep, was sensitive to strong light, loud noises, etc., and from 1879 to 1881 was subject to hallucinations connected with the left ear. On going to bed he would be unable to sleep for two or three hours because of whispering noises, growing louder and louder, heard in the left ear, and of two kinds, one soothing and another demandatory. A careful examination by himself and by a specialist in diseases of the ear, failed to reveal anything wrong connected with the auditory apparatus. When the patient's circumstances changed, and he was enabled to lead a peaceful life, the hallucinations disappeared, and had not returned.

DR. E. C. SPITZKA had not heard the entire paper, but being familiar with the author's views regarding the function of the optic thalamus, he was somewhat surprised that he had not tried to harmonize his observed facts with the anatomical and physiological facts which had been incontestably established during the past decade. Lewes, upon whom Dr. Hammond probably relied chiefly for support of his views, expressed his ideas regarding the functions of the optic thalamus as many as twenty-five years ago, and what he wrote was mere guesswork. If he is supported in part by recent accurate methods of research, such as the study of atrophies and other methods, it is a mere coincidence. Dr. Spitzka said his own views regarding hallucinations are directly opposed to those of Dr. Hammond. He believed that hallucinations have their seat in the cortex, and not in the optic thalamus or any of the lower ganglia. The optic tract and thalamus may have undergone secondary atrophy, following enucleation of both eyeballs, yet the person will be capable of having hallucinations, showing that hallucinations do not have their seat in the optic thalamus. The case cited by Dr. Hammond, in which, during her hallucinations, the patient saw the figure of a man and woman, showed the exercise of mental qualities which could have their seat nowhere else than in the cerebral cortex. Dr. Hammond had asked, whether he did not believe a hallucination to be something which had been previously registered in the memory and which was projected outward. He would reply that, without quibbling with terms, that was precisely what he meant by a hallucination.

DR. M. A. STARR related the facts in a case reported by Vetter, in which a patient having right hemianopsia, imagined that she saw people sitting at her right side, which was the blind field of vision. By a process of exclusion it was shown that the lesion could not have existed in the optic thalamus, but must have existed in the occipital lobe. Dr. Starr thought that in all probability the source of hallucination in this case was cortical irritation. Certainly in a great many cases cortical irritation would produce hallucinations; this is observable in meningitis in which the optic thalamus is not implicated.

DR. W. M. LESZYNSKY recalled the case of a woman fifty years of age, in an insane asylum, suffering from mania, who was in the habit of sitting hours at a time with the left ear inclined toward a table, sending and receiving telegraphic communications she said. She did not receive the telegraphic communications with the right ear, which she said was only for general use. Hearing seemed to be normal, perhaps that in the left ear was a little more acute than that in the left ear.

DR. SACHS referred to a case of hemiplegia with tumors in the optic thalamus, reported by Minot, and asked Dr. Spitzka whether he could imagine an excitation of the cerebral cortex giving rise to an image or hallucination, the revival of such image not being due to an antecedent peripheral irritation.

DR. L. J. CORNING asked why hallucinations which might be produced by impressions coming from the peripheral nerves, might not also be produced by an irritation at any point in that peripheral tract, as in the thalamus. We all admit that the higher forms of conception take place in the cerebral cortex.

DR. C. L. DANA said he would like to hear the subject discussed which Dr. Hammond probably wished to bring before the Society, namely, the duality of the brain. So far as the mechanism of hallucinations is concerned, he thought all would agree with Dr. Spitzka that it is essentially in the cerebral cortex. But the exciting cause may be a peripheral irritation acting upon the psychopathic centres.

As to the duality of the brain, he thought there are many more arguments against the proposition than for it; but the subject is one of great extent, and could hardly be discussed at this hour. The cases of hallucinations did not, it seemed to him, prove much, because only a small part of the psychical mechanism was involved. On the other hand, the experiments of Dumontpallier proved little, because hypnotized subjects can be led to do almost anything by slight suggestion. But pathological observations, the results of hemiatrophies, of tumor on one side of the brain, studies regarding language, etc., all go to show that the two cerebral hemispheres have certain distinct functions, and that there are not two halves of the brain, each possessing about the same function.

DR. CHARLES HEITZMANN said that, although he is not a specialist in this department, he had given considerable study to it, and he had received the impression that neurologists are not entirely clear in their ideas concerning the seat of irritation which causes hallucinations. Let the physiological fact be remembered that an impression upon our senses can be brought forward at any time in the shape of a protracted sensation or hallucination. Thus a peculiar sound may be heard which is merely the image of a real sound, and constitutes a hallucination. Everything which we have learned is deposited in the brain, especially in the gray substance. In the case of the black cat, could the man have had a hallucination of a black cat, if he had never seen a black cat? I doubt it. Wherever the centre for the image of the black cat may be, if any portion of the nerve tract leading from the retina to that centre be disturbed, it will be likely

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to excite that centre, and the image of the black cat will be revived. The special point of interest connected with the cases related was that they were unilateral. He asked if that might not be explained on the supposition that the irritation being upon the one side led to the centre for the given image upon that side only.

DR. SPITZKA said, with regard to the duality of mind, that there can be little difference of opinion regarding the following facts: First, that the two cerebral hemispheres are alike in structure, the variations being no greater than in other symmetrical organs, if allowance be made for a higher type of development; the hemispheres are united by a symmetrical commissure; they have corresponding peripheral tracts; they have about the same distribution of retinal fields; post-mortem examinations of the brains of the insane go to prove that the hemispheres are symmetrical; one hemisphere may be practically destroyed, and the individual still retain power to exercise the several faculties of the mind, as reasoning, memory, judgment, etc., yet, however, that there would be paralysis or other symptoms. But it is a different matter entirely when it is suggested that unilateral hallucinations can exist when the corresponding hemisphere is perfectly healthy.

DR. HAMMOND, in closing the discussion, said it was not his object in reading the paper to discuss specially the function of the optic thalamus. He might say, however, that he believed a person could have hallucinations without an optic thalamus at all, provided he had a cortex; but he believed also that he could have hallucinations without any cortex, provided he had an optic thalamus. In the former case the hallucinations would be due to revival of past impressions; in the latter case they would be original, having nothing to do with former associations. A man without an optic thalamus could have an idea of a cat in the abstract, but he could not have a hallucination of a particular cat, unless he had an optic thalamus. He believed that ideation resides in the cortex. With regard to the duality of the mind, many arguments might be brought forward, but the time would not permit.

BALTIMORE ACADEMY OF MEDICINE.

Stated Meeting, December 1, 1885.

THE PRESIDENT, J. J. CHISOLM, M.D., IN THE CHAIR.

EVISCERATION OF EYEBALL BY THE NEW METHOD.

DR. J. J. CHISOLM related a case of evisceration of the eyeball after the plan recently recommended. The operation consists in completely excising the cornea by means of a circular incision around its margin. The contents of the ball are then to be entirely removed, leaving the sclerotic intact. The advantage claimed for the operation, is that the socket tissues are not disturbed, neither is the muscular apparatus of the eye interfered with; besides, the stump left after cicatrization leaves an admirable seat upon which to locate the artificial eye. The operation itself is a very simple one, and can be performed much more expeditiously than can complete enucleation, but convalescence is so very tedious, and at times gives rise to such painful and alarming symptoms, as occurred in his case, that in future he will confine himself to the old plan of complete enucleation.

Dr. Chisolm said that it is his usual custom to allow a patient to go about his affairs very soon after the operation—at the outside, twenty-four hours; but in the evisceration operation, even up to the fourth day and later, there were such œdema and pain that he could not think of allowing the patient to be from under his observation. He had never had such an experience with the old method.

DR. S. C. CHEW wished to know if sufficient anæsthesia could be produced by the use of cocaine to enable one to perform this operation without painful sensations on the part of the patient.

DR. CHISOLM thought not.

PARALYSIS THE RESULT OF A FALL.

DR. A. B. ARNOLD related a case which occurred at Bay View Asylum a year ago. It occurred in a woman five months pregnant. She fell from the second story window, striking upon the head; when picked up she was senseless, and remained so for three days. As a consequence of the fall, abortion was brought on. At present she has paralysis of both lower extremities, complete anæsthesia on right side, is deaf and also blind on this side. She evidently has some spinal trouble, as she complains of that sensation so common to these troubles, "as if a belt were being drawn about her waist;" also has some enfeeblement of the sphincters of bladder and rectum. In addition, there is a peculiar nervous jerking about the head, which has continued for one year. He thinks the lesion is located about the inferior third of the internal capsule, extending up and involving the optic and auditory nerves at their point of crossing, and also that the nerves of sensation which come off at this point are also affected. The pupils responded normally to light. She had never had any trouble previous to the fall.

DR. CHISOLM asked if any ophthalmoscopic examination had been made. He said he was prompted to ask this question by a case which recently came under his observation. It occurred in a man who had received a severe beating, and among the results, loss of vision began after about six weeks. He examined him, and found anæsthesia of the fifth nerve, the hearing involved, and several small retinal hemorrhages around the point of entrance of the optic nerve.

DR. S. C. CHEW related an interesting

CASE OF EMPYEMA.

He had been called in consultation to see a case which occurred in a patient who for several days had suffered from severe dyspnœa. The night before he saw the patient he had had copious expectoration of matter, the nature of which he could not describe, as it was not saved. This was followed by immediate relief from the difficulty of respiration. Upon physical examination of the chest the left pleura was found to be about two-thirds filled with fluid. Shortly after his visit, the patient suddenly died with profuse vomiting of purulent matter, as well as the passage of quantities of it from the bowels. From such symptoms he thinks it highly probable that perforation took place through the diaphragm into the stomach, and that the fluid was dis-

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charged in both directions, through the œsophagus and through the intestines. He had searched the literature on the subject, but had found no case terminating in this manner recorded. Physical examination of the chest, made before the first expectoration of matter, showed the pleural cavity to be entirely filled with fluid. More recently he had seen a patient at the Baltimore Infirmary whose physiognomy was indicative of pulmonary trouble. Percussion over right side of chest gave decided resonance both anteriorly and posteriorly. On auscultation on same side there was pronounced Hippocratic succussion. Shaking the patient while one ear was still on the chest gave a sound very similar to that heard when one shakes a jug partly filled with water. No discomfort at all was noticed, neither pain nor dyspnœa. He thought the absence of dyspnœa could be explained on the ground that the air probably distended the pleura (and this compressed the lung) so gradually that this lung, as well as the healthy one, had sufficient time to accustom itself to its abnormal relations. Whether perforation was due to ulceration outward through the pleura, from the wall of a cavity in the lung, or whether it was due to a loss of substance occasioned by a point of inflammation upon the visceral pleura, and thus perforation taking place in the reverse direction, he could not say, although symptoms sufficiently marked were present to point to either mode. In his opinion surgical interference should be resorted to as soon as the condition of empyema is made out.

DR. ARNOLD had seen a case of empyema in a child. It occurred on the right side, ulcerated through the diaphragm, and discharged its contents into the abdominal cavity. The child died from shock. He considered it somewhat remarkable how rarely phthisical patients show any signs of discomfort from interference with respiration, even though their lungs may be riddled with cavities.

DR. CHEW looked upon this as due to the slowness of the pathological process, this enabling that portion of the lung which is healthy to increase its physiological activity. He also thought, in view of the fact that cavities so frequently form near the pleura, that it is singular perforations from them are so rarely found.

DR. CHISOLM said serous sacs resist perforation.

THE COCAINE HABIT.

DR. J. C. THOMAS said, since he had been told that in some of our principal cities the cocaine habit was being acquired largely, he would like to ask if any member had ever seen a case of it; and if the report is true, did not the gentlemen think that the medical profession should take some steps to prevent the reckless prescribing of this seductive drug.

DR. CHISOLM related two cases in which decided loquacity was produced by the introduction of cocaine into the cavity of a decayed tooth. In speaking of cocaine tablets, he referred to a condition amounting almost to a slough, that was produced on the buccal surface of his own cheek from the application of one of these tablets to the gum and allowing it to remain until dissolved. From this, he hardly considered their use advisable in nasal catarrh.

CINCINNATI ACADEMY OF MEDICINE.

Stated Meeting, November 30, 1885.

THE PRESIDENT, SAMUEL NICKLES, M.D., IN THE CHAIR.

SUPERFŒTATION.

THE discussion of this subject was postponed from the meeting of November 2d, when DR. J. H. TATE presented a specimen which he had removed from a woman who had been confined on the 15th of October preceding. The history of the case he gave as follows:

The patient menstruated last on the 21st of November, 1884. Within a few days after this she complained of nausea similar to that which she had before suffered when pregnant, and inferred that she was again in this condition. The nausea persisted for some time, and no menstrual flow appeared up to the time the labor occurred, constituting a period of 328 days. Was this, the speaker asked, a case of protracted gestation, or what was it? The woman believed herself pregnant, and all the symptoms indicated the correctness of her belief. In the latter part of August she began to experience what she supposed were the premonitory symptoms of labor, symptoms that persisted until labor occurred. The labor progressed with nothing of an unusual character until the child had been delivered; this occurred about 9 P. M. The placenta came away without difficulty, and was remarkable only for its small size compared with the healthy, well-developed child that preceded it. Examination showed it intact, and possessed of no peculiarities. The uterus contracted firmly; the bandage was applied, and the speaker departed, leaving his patient in a good condition, as he supposed.

The next morning the nurse reported that shreds of tissue resembling the membranes had passed during the night. Upon examination, he found some pieces of the membranes and portions of what resembled placental tissue. A mass of considerable size was found in the lower portion of the uterus. Gradual traction upon this brought away an entire placenta projecting from which could be seen the remains of a cord. This specimen was presented for examination. The first placenta was, unfortunately, lost. No second fœtus was discovered; but the speaker considered the case reported one of superfœtation. The fact that there were two placentæ of different sizes in the womb would argue that a second conception had occurred about three or four months after the woman first became pregnant. From the fact that but one child was delivered and from the appearance of the cord it would appear that one child died, but that the placenta belonging to it continued to develop, owing in all probability to the stimulus to the uterine circulation caused by the presence of the other placenta.

Some authors deny, the speaker continued, that superfecundation can occur, but the arguments supporting their opinions are not convincing. The old idea that the ovule and seminal fluid cannot meet and cause a second conception is false. The old Hunterian idea that the decidua is a closed sac has been abandoned. There is no barrier to the entrance of the ovule into the impregnated uterus; neither will the mucous plug in the cervix prevent the entrance of the seminal fluid. It has been

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asserted that the only proof of such an occurrence is to be found in the discovery of fresh corpora lutea of ages to correspond with the pregnancy.

Tyler Smith reports the case of a woman who was delivered of two children five months apart; and Stern, a case in which a woman was delivered of a child at four months and another at eight.

Our knowledge of what is really going on during menstruation is very limited. One gynecologist tells us that he has seen, in more than one living subject, the ovule discharged at a time midway between the menstrual periods. Among other instances, the speaker referred to a case that occurred in Strassburg, in which a woman gave birth to two fully developed children, the second 140 days after the first.

This phenomenon and others like it, many attempt to explain by the assertion that the two children bear the relation of twins, one of which fails to develop to as full an extent as the other, owing probably to the supposed fact that it does not receive an equal share of nourishment, and must therefore remain a longer time in the uterus. This does not seem rational; and the only case in which such an explanation could be given would be in those rare cases of a double uterus. In the case which occurred in Strassburg, Professor Esselmann kept the woman under observation until her death, after which a single uterus was revealed.

DR. JAMES T. WHITTAKER remarked that we should first have a definite understanding of the meaning of terms. Superfecundation and superfœtation, which are often used indiscriminately, do not mean the same thing. Superfecundation signifies the impregnation of multiple ova after different acts of sexual congress whether from the same or different males, but always, and this is a *sine qua non*, of ova furnished at the same period of ovulation. The question whether superfecundation is possible has been raised. If we reason by analogy from the lower animals, as has been done by the reporter of the case this evening, we should have to accept the possibility of superfecundation in man. A mare crossed by a horse and a jack, may produce both a horse and a mule, and dogs, cats, and other animals beget offspring the product of the various animals with which they have come in contact. But reasoning by analogy is not always safe. The clearest proof of the possibility of superfecundation in man would seem to be the simultaneous birth from a white woman of black and white children. Such cases are upon authentic record. But the intercourse with the males of the different races occurred of necessity within the same period of ovulation. Yet this evidence which seems so clear, is not so in reality. For it is well known that children the offspring of crossed races resemble more distinctly one or other parent, so that a white woman may beget white children from a negro, or a black woman may beget black children from a white man. The birth of twins, one white, the other black, would not therefore be proof positive of superfecundation. It would simply prove that the female of one race had been impregnated by the male of the other race. There is no positive proof of the possibility of superfecundation, though reasoning by analogy from the lower animals it may be said not to be impossible.

On the other hand, superfœtation—that is, the impregnation of ova from different periods of ovulation—is a physiological impossibility; for, when an ovum has been impregnated, further ovulation ceases at once. This is not a rule to which there are exceptions. It is a law, and, as a law of nature, it is immutable and without exception. There is a simple proof of this; so simple as to be patent to every observer. I shall allude to it again, but not to withdraw all interest from the discussion at the start by the exhibition of proof which is universally demonstrable. Let us look at the evidence which has been so plausibly presented in favor of superfœtation. This evidence, so far as the specimen is concerned, is valueless; for there is here nothing but a placenta delivered one day—one day only—after the delivery of a birth at term with all the adnexa. Such a case would not fall by any possibility under the domain of either superfœtation or superfecundation. There is no fœtus; there is only the suspicion of a cord to the second placenta, and the case could at most be only the placenta of a twin which had been blighted early and which had been absorbed.

But the case, such as it is, has been used as the text of a discourse in favor of superfœtation, and we may regard the arguments, if not the specimen. The evidence presented by the reporter of this case is based upon the occurrence of menstruation during pregnancy, upon the birth of children on widely distant times, upon the occurrence of conception during lactation, which is considered analogous to gestation, and upon analogy from lower animal life.

As regards menstruation during pregnancy, it is answered that not every hemorrhage is a menstruation. In the few exceptional cases of persistent menstruation, it is noticed that the periodicity of the occurrence disappears. These patients often remark upon the fact that they have been unwell twice in a month, instead of once. True menstruation does not occur in pregnancy. True menstruation is physiological; metrorrhagias are pathological. True menstruation is a companion of ovulation, and, like it, is distinct in time. Any hemorrhage during pregnancy is not a menstruation. It is a metrorrhagia, and is no more entitled to be called a menstruation than is the show of blood which immediately precedes a labor.

The evidence adduced to support the statement that children have been born of widely different ages is based solely upon differences in length and weight, or differences in the degree of development. No evidence could be more fallacious. Think for a moment what differences are observed in normal single labors. One child weighs five pounds, another ten, and equal disparity is observed in length. Shall these children be said to be of different age? So it is with twins. One of twins is often smaller than the other, and this difference has been observed in twins enveloped in the same membranes, the product, hence, of the same egg. In Martin's case one of the twins was 3⅛ inches shorter and 18 ounces lighter than the other, and if such difference has been seen in twins from the same ovum, what greater differences do we not encounter in twins from different ova. I am speaking now of conceptions from the same coition. Do we not frequently see evidences of arrest of nutrition and development in one member or organ of a child, whether of single or multiple birth, and is it not universally admitted that the gross differences we see in the whole body are easily explicable by arrest of development of one child? Why

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should we appeal to something mysterious and physiologically impossible to explain, phenomena which admit of explanation in a simple, obvious way. Is it at all surprising that twins in a bilobed uterus should experience a different degree of development, and one should be born further advanced than the other, or is it at all surprising that twins, one in the uterus and the other extrauterine, should show differences of development. Would it not be more surprising if they were developed to the same degree under these widely different conditions? So differences in weight or length or stage of life are readily understood without appealing to the possibility of superfœtation, a most superannuated doctrine. I take it that these cases are twins from the same period of ovulation, and one has been stunted while the other has grown. This accident happens very frequently in the case of twins. In the lower animals differences of this kind are observed as a rule.

The reporter this evening seems to put particular stress upon the occurrence of births at different times as evidence of superfœtation. He has cited cases in proof with differences amounting at times to 120 days. It must have struck the members who have listened attentively to these reports how many of the cases date from ancient literature. Ancient literature abounds in marvels. Cases of this kind grow fewer and further apart as we approach the period of the study of pathology or morbid anatomy, and they almost cease entirely within the last quarter of a century. Kussmaul and Schultze examined with patient detail all the cases they could collect, and what did they find? Why, that not a single case bore the test of criticism. The only authentic cases where any real wide disparity of time occurred admitted of easy explanation by the premature birth of one of twins conceived at the same time. Such cases are not so very rare in the literature of medicine. One child is born while the other is carried longer, even to full term.

It is quite useless to consume time with the possibility of conception during lactation. That fact is universally conceded. True menstruation sometimes establishes itself during lactation, true menstruation preceded or attended by ovulation with possible pregnancy as a matter of course. But lactation is not gestation. Gestation absolutely precludes ovulation as a law, while lactation excludes it only as a rule. Moreover, it is useless to reason by analogy from lower animal life. In the cases in which superfœtation is said to occur, the conditions are very different from those of man. In the deer, for instance, according to the observations of Ziegler and Bischoff, after impregnation and the process of segmentation is complete, the fecundated egg lies quiescent in the uterus, undergoing no development whatever for a period of four and a half months. It is not impossible that ovulation may reëstablish itself during this period of quiescence.

I have said at the start that there is a proof that puts this whole question beyond a doubt. It is so simple and easy that any one may see it for himself. It is a proof demonstrable to the senses, physical, precise, or, as we say, scientific. I will cite it now. Whatever doubt regarding menstruation, there is no doubt, it will be conceded by everyone here or elsewhere, that conception requires an egg. An egg comes from an ovary, and an ovary in furnishing an egg suffers rupture of the capsule, or follicle, the Graafian follicle containing the egg. If anyone here was asked for the proof positive of the pregnancy in the body of a woman, he would turn at once to the ovary and look for a Graafian follicle. All changes in the uterus might have disappeared, but the Graafian follicle would show its wound as long as nine months after conception. In a recent case the follicle would be filled with fresh blood, black, the so-called *corpus nigrum*. In an old case the blood would show retrograde changes, would become yellow, to constitute the so-called *corpus luteum*. I repeat, conception demands a previous ovulation. There may be a false menstruation, so called, without ovulation, but surely no conception without ovulation, and no conception without a *corpus nigrum* and, subsequently, a *corpus luteum*. Well, what has all this long since demonstrated and universally accepted fact to do with superfœtation? Simply this. There has never yet been demonstrated a fresh *corpus nigrum* or a *corpus luteum* in addition to that one or those two which furnished the uterus with its contents. They have been looked for often by the advocates of superfœtation, but the search has been abandoned now as fruitless. This fact removes all support for superfœtation. All the speculation, hypothesis, or logic in the world cannot substitute this single anatomical truth, though presented with all the grace of rhetoric we have listened to to-night. Thus, superfœtation ceases to be a fact, to become a myth.

DR. THOMAS A. REAMY said: I shall defer what I have to say regarding the case brought before our notice by the reporter, until the latter part of my remarks, since I desire in the beginning to reply to the sweeping declaration of my distinguished colleague and personal friend who has just preceded me.

He has taken strong ground upon the subject of superfœtation, and when he says that the phenomenon is a physiological impossibility, because ovulation never occurs during gestation, I accept the challenge, and join issue with him, notwithstanding I must meet him in his own realm of physiology, a department in which he is high authority.

Now nothing is better known than the special independence of the functions of ovulation and menstruation, although their general association is admitted. That menstruation, a regular periodical flow of blood from the endometrium, may occur without ovulation, is substantially proven. That gestation, as a rule, suspends menstruation, is also well known; but to this law there are exceptions. I have myself the notes of ten cases in my own practice where periodical menstruation occurred every twenty-six to twenty-eight days until the third month of gestation. In three of these subjects the observation was repeated during two and three pregnancies respectively. The health of the women and the periodicity of the flow negative an ordinary hemorrhage.

The physiological proof of ovulation is either pregnancy, or, in its absence, the corpus luteum. And all physiologists now know that the corpus luteum of pregnancy differs from that of ovulation, not in kind, but in degree only. It is not now as valid proof of pregnancy as formerly.

Dalton, in his celebrated paper before the American Gynecological Society, in 1877, reports a case of careful examination of the ovaries, nine days after a menstrua-

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tion, which was clinically normal in every respect, and not a trace of a corpus luteum was found. Reeves Jackson, in a paper read before the American Medical Association, in 1884, reports many cases of the same kind.

As for the occurrence of pregnancy without menstruation, it were idle to waste time, for everybody of large experience has seen and reported such cases. I have myself the records of three cases whose confinement I attended, and not one had ever had a single sign of menstruation. Jackson's paper, referred to above, quotes a large number of such cases. Fordyce Barker reports a woman who menstruated regularly up to the time of her first pregnancy, and never menstruated again in her life, although she subsequently bore ten children.

You have all heard of women, for the transactions of obstetrical societies are full of such instances, who have continued to menstruate long after both ovaries have been removed and ovulation was impossible. Enough has here been briefly cited to demonstrate the absolute independence of ovulation and menstruation in special instances.

Again, and this the gentleman has admitted, there is acknowledged to be no mechanical obstruction to the entrance of the spermatozoa through the cervical canal, since the time-honored plug of mucus is not always present, and is no insurmountable barrier when it is, probably indeed favoring the transit of the spermatozoa. Likewise, the Fallopian tube is entirely pervious from end to end on the side opposite to the developing ovum. Again, Coste's investigations have shown that union between the decidua vera and the decidua reflexa does not occur until the third month, or even later, and there is thus a highway permeable both by ova and spermatozoa from the ovary to the vagina.

Now but one link in the chain necessary to the occurrence of superfœtation remains, and this link is the question: Does ovulation ever occur during gestation? My learned colleague says it never does, and with this broad declaration I take issue. When he says that ovulation never occurs during gestation, he includes by the universality of his statement not only the single uterus, but also the bilobed variety; and not only intrauterine, but also extrauterine gestation. However, lest I may seem to take unfair advantage of the breadth of his statement, I will slightly qualify that last proposition in his favor, by limiting the assumed control which extrauterine gestation may have over ovulation to the time which the ovum continues to live.

Now let us examine the evidence on this subject, and first let us take clinical testimony. Dr. Bonnar, of Cupar, reports in the *Edinburgh Journal*, 1865, the following case: A woman was delivered of a living healthy child on the 12th of September, 1849, and on the 24th of January, 1850, of another child also living and healthy, 127 days intervening between the two births. Dr. Bonnar assumes that it is not possible for a woman to conceive under 14 days after delivery, and subtracting this period from 127 days, it would leave but 113 days as the length of time from the conception of the last child until its birth, assuming that conception occurred after birth of the first child. If it be alleged that the first child was premature, then it was delivered four months before full term, which, as it was living and fully developed, nobody would believe. Here, although there was no evidence of its existence, it might be claimed that there was a bilobed uterus, but even if there was, did not that woman ovulate during gestation? If so, then uterine pregnancy does not always suspend ovulation.

In the well-known case reported by Fordyce Barker, "a woman gave birth on July 10, 1855, to a boy at term, and on September 22d, of the same year, 73 days later, to a girl also alive but smaller." Subsequent examination showed this woman to have a bilobed uterus. Who here can deny that she was gestating in one lobe of her uterus while the ovum entered the other? A similar case is reported by Dr. Ross, of Brighton. A woman who had already given birth to six children, miscarried with twins on July 16, 1874, and on the 31st of October, fifteen weeks later, was delivered of a healthy child. Examination here showed a bilobed uterus, each side of which had been impregnated.

I will quote one more case on the clinical side of this question, and for its details I refer you to Tyler Smith's *Manual of Obstetrics*, page 112. A young married woman in her first pregnancy, miscarried at the fifth month, and some hours subsequently she discharged a small clot bearing a healthy ovum of about one month's development. This patient had menstruated regularly during her whole pregnancy. Do you doubt that she ovulated? Can you call in question keen observers like Tyler Smith? Do you suppose that Tyler Smith could not tell a blighted ovum from a healthy one? If you take clinical evidence from anybody, can you desire any higher authority than this great master in obstetrics?

Now such cases in bilobed uteri, whether they be technically cases of superfœtation in the strict limitation of the term or not, are quite germane to the subject under present discussion, in that they offer the strongest clinical proof that ovulation may and does occasionally occur during pregnancy. It is indeed quite fortunate for us in settling this point that a few bilobed uteri have been found, which have carried gestations at widely different stages of development, and thus demonstrated that the ovary may carry on its function while there is a living fœtus *in utero*. Without such cases the opponents of superfœtation have always argued that reported cases are instances of twin fecundation, one of which has been retarded by the growth of the other. In such an abnormal uterus however, retardation of growth is not liable to occur, and the clinical inference beyond question is, that ovulation has occurred while gestation was in progress. Another addition to the clinical aspect of this subject is the occurrence of uterine pregnancy simultaneously with an active extrauterine fœtation. Such cases are not rare, and so many have been reported that it would be a waste of time to cite particular instances.

Now, if my learned disputant admits the evidence of a single one of the cases cited, he must surely modify his inflexible "never." If ovulation, during gestation, be proven in a single case, in others it may be assumed. But, knowing the tendency of my friend to claim all clinical evidence as fallacious, in the absence of physiological or pathological corroboration, let us see if there is any physiological testimony to sustain this position. Scanzoni long ago contended that Graafian follicles enlarge and mature during pregnancy; but he had never seen one that had burst. But Slavjansky saw a fresh corpus luteum in the right ovary of a woman who died

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in the third month of pregnancy, while the left ovary bore the corpus luteum of the pregnancy which was in progress at the time of her death. This case is from the *Annales de Gynecologie* for 1878. Again, Mayshofer, in the *Wiener medicinische Wochenschrift* for 1876, reports a case of fresh corpus luteum in pregnancy, and at the same time quotes cases of the same character exactly from Kussmaul, Luschka, G. Braun, and Tobege.

After such clinical evidence from such high authority, and physiological facts from investigation of unquestioned ability, how can we resist the inevitable conclusion that ovulation has occurred during pregnancy; and, if ovulation, then from the absence of mechanical obstruction, which absence has been demonstrated beyond doubt, conception may occur, and such conception is superfœtation? The proof is both physiological and clinical.

It is hardly necessary for me to state that while I believe, as I have briefly tried to show, that ovulation may occur during pregnancy, I deem such cases quite rare, and the converse of the proposition to be largely the prevailing rule.

I confess that many of the clinical cases quoted by authors in proof are not in point.

I have just examined the placenta exhibited by the reporter, and am of the opinion that it is a piece of an extraordinarily large placenta, whose major part was delivered shortly after the birth of the child. Consequently I do not esteem this a case of superfœtation, but rather a case of partially retained placenta, which was fortunately delivered spontaneously before organization or sepsis had occurred. I state this opinion with diffidence, for we all know the large experience and great ability of the reporter in such matters.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, November 24, 1885.

THE PRESIDENT, CHARLES MCBURNEY, M.D., IN THE CHAIR.

OSTEOSARCOMA.

DR. MCBURNEY presented a specimen of large osteosarcoma, removed post-mortem from a colored boy, fifteen years of age. Dr. McBurney showed the boy to the Society two years ago. The history of the tumor was that it first appeared as a small swelling on the right side of the lower jaw eleven years ago. Its growth since that time had been uninterrupted. The boy remained in good health up to last July, when the interference with deglutition became so great that it was necessary to feed him per rectum. He died of inanition on August 24.

The microscopical examination was made by Dr. Frank Ferguson, who made the following report:

The tumor is an osteosarcoma with much fibrous tissue and fat. It arises from the right ramus and body of the lower jaw to the right of the median line. Extending from this location is a mass of bone, the antero-posterior measurement of which is seven inches, and transversely it measures eight and one-half inches. Vertically it measures four inches.

This large mass of bone has crowded the left half of the lower jaw and a portion of the right half of the bone much to the left. The inferior maxillary bone is bent at the symphysis, forming an acute angle. One and one-half inches of the body of the bone on the right side, containing two teeth, pass directly backward, from the symphysis, in the median line.

The condyle of the right ramus is found just beneath the right external auditory meatus.

The right half of the superior maxillary bone is much distorted. The last molar in this bone is half an inch below the floor of the right orbit, and three-fourths of an inch from the median line.

The œsophagus and trachea are pushed much to the left, being only one inch from the surface of the neck on that side. The neck extends directly backward, at right angles from the normal line of the vertebral column.

The large mass of bone above described is covered by lobulated soft tissues, composed of fat, fibrous tissue, and numerous medium sized spindle-shaped cells. The bone is simply compact bone-tissue. The tumor is limited by a fibrous capsule. The greatest circumference of the tumor is twenty-nine inches. From the highest level to the most dependent portion it measures eleven inches. It weighs, as presented, seventeen pounds, three and one-half ounces.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, December 4, 1885.

THE PRESIDENT, T. G. RODDICK, M.D., IN THE CHAIR.

CEREBRAL SYPHILIS.

DR. GEO. ROSS now read a paper on some cases of cerebral syphilis which had recently come under his care. He remarked that modern pathologists have confirmed the surmises of the older writers regarding syphilis being responsible for many affections, and have shown that important organs may, and often do, become the seat of syphilitic disorders; they have also shown that symptoms of present disorder may be induced by local inflammation of a specific nature by the invasion of a neoplasm, by softening due to obstruction of diseased vessels, and by the interference of a tertiary swelling of the periosteum, as a result of constitutional disease of the bones themselves. It has been thought, also, that symptoms of cerebral syphilis may be observed whilst the autopsy shows no special changes in the brain.

He regarded the field of brain syphilis as a peculiarly attractive one to the clinician and pathologist, on account of the strikingly different disease-pictures that may be presented, the diagnostic difficulties met with, and the practical importance of the cases. He instanced tabes dorsalis as a disease, in which, in spite of all the attention bestowed on it, it was yet a moot point whether or not it should be looked upon as of syphilitic origin.

Dr. Ross, in this connection, related the case of a patient who had come under his care last winter for exaggerated ataxia. A suspicion of syphilis being entertained, anti-syphilitic treatment was employed and a rapid recovery resulted. He also related the case of a gentleman who had suffered from an eruption on the face for over a year, for which he had obtained no relief by treatment. Suspecting its origin to be syphilitic, although not able to obtain a history, Dr. Ross placed

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him on a mercurial treatment and his eruption rapidly disappeared; a year or more after he had an occasional epileptic fit and finally he became comatose and his death was hourly expected. Dr. Ross saw him, and from a previous knowledge of his case put down the symptoms as probably due to syphilis; he treated him accordingly with large doses of iodide of potassium and the man rapidly and completely recovered.

The reader of the paper went on to remark how difficult it is to get a history of syphilis in many of these cases, and said that persons who suffer from late developed syphilis of the nervous centres, are extremely likely to give no account of the well-defined secondary symptoms which are so common, and they at times are not even aware that they have ever had any secondary symptoms. The practice of giving potassium iodide as a test in nervous cases was highly recommended, and should be adopted in every case where there is the slightest element of doubt.

Dr. Ross held that there are no pathognomonic signs which point conclusively, without the aid of the history, to the specific nature of the case, and more dependence should be placed on the grouping together of various symptoms than upon any individual symptom. For instance in epilepsy, many cases of general convulsions resemble in almost every respect what is called "essential epilepsy," and yet are due to constitutional taint. They cannot always be diagnosed as such; then the therapeutic test alone will determine the question. According to Dr. Buzzard, in syphilitic cases there is often a history of antecedent pain in the head for months before the first fit. The reader of the paper then related a case of cerebral syphilis, in which there was persistent headache for months, then the patient was seized with violent and frequent epileptic fits, followed by partial loss of power of the right arm and leg. There was in this case a distinct history of syphilis acquired fifteen months before. He was rapidly placed under the influence of mercury by means of inunctions and was quickly relieved of his headache, epileptic fits, and other symptoms. After salivation by mercury he was given large doses of potassium iodide. In this case the lesion was probably situated on the cortex of the left hemisphere.

Two other cases were also related; in one the patient had prolonged pain in the head, followed by sudden left hemiplegia. Under anti-syphilitic treatment, he improved; in the other case there were sensory disturbances, lethargy, mental impairment, and some defect of speech; he had frequent attacks of numbness and spasm of the right side of the body, which left him in a dazed and dull condition. In this case there was no history of syphilis, but, nevertheless, the man was put on anti-syphilitic treatment; he, however, remained only two weeks in the hospital, and was discharged at his own request. Whilst under treatment, no definite attack of numbness or spasm occurred.

DR. HENRY HOWARD, after complimenting the reader of the paper on the excellent manner the cases had been reported, stated that he had seen many obscure affections of the brain due to syphilis, and had seen many apparently hopeless cases recover after anti-syphilitic treatment. In many fatal cases no cause is discovered after death—that is, there is no gross lesion. He believed that, in the future, changes will be discovered by the aid of the microscope, which will fully explain everything. What is necessary is a more exact knowledge of the histological anatomy of the brain, and then the pathological condition will be more readily recognized. Even now, brains formerly considered normal are found, on accurate microscopical examination, to have undergone distinct pathological changes, especially in and about the bloodvessels.

DR. STEWART considered that cerebral syphilitic lesions are much better treated by mercury than by potassium iodide; mercury is an antidote to syphilis, potassium iodide is not. Mercury should first be tried, and inunction is the best method; in this way the remedy is introduced more effectively, even than by hypodermic injection.

DR. A. LAPHAM SMITH related a case of epilepsy where the post-mortem revealed a syphilitic gumma in the brain. There was no history of syphilis.

DR. F. W. CAMPBELL said he had some experience with inunction in the treatment of syphilis, and he had found that at times it is as difficult to get the patient under the influence of mercury by this method, as when mercury is given by the mouth; he had seen some patients salivated by five grains of blue pill.

DR. SHEPHERD, in speaking of the difficulty of getting a history in many cases of suspected syphilis, mentioned several cases in which there were well-marked tertiary symptoms, but no history of primary or secondary manifestations. In one case, that of a medical man, secondary syphilis developed, and absolutely no history of primary sore could be obtained. In tertiary syphilis, he advised first the use of potassium iodide; if that failed, then mercury; and if mercury failed, a combination of the two. He mentioned also that he himself is easily salivated by five grains of blue pill, and he knew of several like cases, and asked whether such a small amount of mercury is efficient to act as an antidote to the syphilitic poison. He thought not.

DR. WILKINS regretted that he had not known that Dr. Ross was going to read a paper on such an interesting subject as cerebral syphilis, as he could have looked up the notes of several most interesting cases. He related the case of a washerwoman who was subject to epileptic fits, followed by great drowsiness, and who, under treatment by potassium iodide, in large doses, rapidly recovered. In this case there had been no pain in the head preceding the fits; and he had seen several similar cases.

Many cases of cerebral syphilis can be recognized only post-mortem, by the aid of the microscope. By this means alterations may be found in the bloodvessels; and other minute changes can be discovered which will fully account for the fatal result.

DR. T. JOHNSON ALLOWAY reported a case of epilepsy, due to syphilis, cured by large doses of potassium iodide.

THE PRESIDENT (Dr. Roddick), after relating some cases of brain syphilis he had seen, said that he thought a history of gonorrhœa is, in many cases, quite sufficient to establish the fact that syphilis had been contracted, as chancres may occur in the urethra, and so cause a discharge which simulates gonorrhœa. Many of these cases, when there is no history, may be instances of late development of hereditary syphilis. He had seen such a case, with Mr. Jonathan Hutchinson, in London, a couple of years ago.

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DR. ROSS, in reply, said that pain in the head, although a prominent symptom in his cases, he should by no means always expect to find. No one symptom is pathognomonic of cerebral syphilis; but pain comes near to being so, especially if it be nocturnal. Many cases are most obscure, and no history of syphilis can be obtained.

CORRESPONDENCE.

THE WASHINGTON MEETING OF THE AMERICAN PUBLIC HEALTH ASSOCIATION.

(*From our Own Correspondent.*)

THE American Public Health Association has just been holding its Thirteenth Annual Session in the City of Washington. This was, perhaps, the most representative meeting the Association has ever held. Among its members were nearly all the chief active sanitary officers of State and Municipal Health Boards, with representatives of the Army, Navy, and Marine-Hospital Service. They are generally men of large experience and earnest convictions, who are acquainted with the details of sanitary administration and who have found it necessary to keep abreast with advancing knowledge. The long autographic letter of the President of the United States showed an appreciation of public health interests very gratifying to those laboring in this cause. Maine and Pennsylvania with their new State Boards, and North Carolina with a large appropriation in place of suspended work, were warmly welcomed.

While appreciative of the Association, we have sometimes criticised it because it devoted so much time to popular addresses and exhortations, and not enough to that class of papers and discussions which have to do with scientific progress, and with the technical methods of administrative work. There are many things which we no longer need be told ought to be done—what we need to know, is just how to do them. There were at least four groups of papers that concentrated in this direction: the first was the series having reference to nomenclature and statistics. Dr. Hunt, of New Jersey, reviewed the terms now in use in the various departments of public and State hygiene, and showed that not a few needed to be used more precisely, while others should be retired from service. He offered an outline, and quoted authorities and reasons therefor. Some of the changes proposed were the use of the term State Hygiene instead of State Medicine, of communicable instead of zymotic and other terms; the use of infectious—if at all—only as the synonym of communicable, and the arrangement of miasmatic, contagious, contagio-miasmatic and malarial diseases as classes under that order. The statistical nosology was also reviewed. The parasitic diseases, microörganisms, or microbia, should be the only general terms; microzoöic serving to designate such as are of the animal, and microphytic such as are classed with the vegetable kingdom. Thus bacteria, bacilli, micrococci, and spirochætæ, serve to designate groups so far as known under the microphytes, while Cobbold furnishes us the details as to the microzoa.

Dr. Billings reviewed the modes of tabulating vital statistics, and showed how these tables are best prepared, and, where choice must be made, what ones should be preferred. He illustrated the subject by his experience with the returns of the last Census, and showed the need of greater uniformity.

Dr. Baker, by statistics and curves, set forth the evidences of the relation between rainfall and ground-water level in cholera, as he has before done as to typhoid fever.

Dr. Chancellor, of Maryland, discussed the evidences that consumption is largely caused by impure air and unhealthy occupations. The statistics were from good sources, but we regret that no accurate American statistics could be furnished. The discussion drew out some valuable distinctions between those pulmonary diseases that result from impure air and those that result from particles of mineral or other matter. These latter are too frequently called phthisis. The paper of Dr. Lee, of Philadelphia, deserves to rank with this group because it not only figured out the cost of the Plymouth epidemic, but with accuracy of detail associated the water distribution and the specific dejecta of typhoid fever originating in Philadelphia with the more than eleven hundred cases that occurred.

The next group was occupied on matters of administrative hygiene. Dr. Rauch, of Illinois, Dr. Holt, of New Orleans, and Dr. Armstrong, of the Marine-Hospital Service, in great variety of style and method traversed the whole subject of quarantine. It was urged that *Manner or Method*, and not *Time*, is the question. Dr. Holt is following out the plans of the New York Quarantine and of Dr. White, and other of the Auxiliary Association, those of New Orleans. Only in common with these he has learned that examination and disinfection must be radical, that superheated steam is better than fumigation, although this may be added, and that corrosive sublimate is valuable. It is not creditable that we should have been so long finding out what Humphry Davy told us long ago and saw applied in the art called kyanizing. The modes of opening up the hold of a ship and dealing with bilge water were shown. Dr. Rauch's paper was historical, and that of Dr. Armstrong, a detail of methods. The papers and discussion serve to put on record the accepted methods, valuable not less to commerce than to sanitation. We hope, however, that in the volume a few abridgments will be made. The reports from Canada as to smallpox and the particulars of its management were very interesting and instructive. Dr. Bryce represented chiefly the Province of Ontario. Dr. Hingston not only detailed the facts as to the more than 3000 deaths and the unnumbered cases of smallpox in Montreal and vicinity, but in a forcible manner illustrated the crime of those who incited the French populace to resistance. Vaccination scored many a valuable record, although some gentlemen made statements about manufactured vaccine and recurrent smallpox which they failed to substantiate.

Dr. Wright read a paper on his experience at Detroit in the disinfection of sewers with sulphur. His descriptions were graphic, his plan inventive and his comments decidedly forcible. It certainly showed thorough work, although some of his conclusions as to its effect in arresting scarlet fever and diphtheria were questioned. The sulphur got into so many houses as to satisfy the occupants of the imperfection of their traps. A Cleve-

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land plumber made some excellent remarks on the need of skilled oversight in all house-pipe construction.

The Report of the Committee on School Hygiene and the excellent comments of Hon. Erastus Brooks on the twenty or more papers submitted to his committee on the Lomb Prize on this subject, were very valuable as permanent contributions. Not less so was the paper of Prof. Hartwell, of John Hopkins University, Baltimore, on "The German System of Physical Education." All these contributions were historical and critical, and with the essay of Dr. Lincoln, of Boston, who received the Prize, furnish the best material on school hygiene ever produced in this country. The work of sanitary school inspection now found to be going on in several of the States is most important.

The Report of the Committee on Disinfectants has already been, for the most part, before your readers. In addition, Surgeon Stanbery received the prize for a distinct essay on the subject. This report has not been too much commended. Yet now that it is before the Association some of its methods and conclusions will come under review. It should be read side by side with the work of the Local Government Board of England for the past two years.

The Association now feels that it has advanced in the direction of scientific research, and set itself at work in two or three other directions for the next year. As throwing additional light on the biological investigation of disease and the mode of its prophylaxis, the paper of D. E. Salmon, D.V.S., on "The Swine Plague," was equally valuable.

Of the four Lomb Prizes, two have been already alluded to. Second prizes only were given on "Healthy Homes and Foods for the Working Classes," and on the Preventable Causes of Disease, Injury, and Death "in American Workshops." The first was secured by a physician of Ann Arbor; the second by a mechanic (we believe), of Springfield, Massachusetts. Both are valuable. The Committees were very exacting, and determined that the essays to be distributed broadcast throughout the land should have real merit. Three first prizes remain unawarded. Captain Lomb, of Rochester, not only continued these for another year, but added additional prizes for a working plan and model for artisans' houses of prices $1500, $1000, and $600, and for a tenement house for about fifteen families, complete in all sanitary appointments.

Other papers, such as those of Dr. Morris, of Baltimore, on "Cremation," Dr. Bell, of Newport, on "Hygiene of the Dwelling," Dr. Wood, of North Carolina, on a "Study of Southern River Water," Dr. Hargis, of Pensacola, on "Modified Inoculation," etc., deserve mention. The Association now commands the attention and coöperation of physicians, engineers, chemists, teachers, plumbers, and the public, and has had a four days' conference of great advantage to its members and the country at large.

The address of its President, Dr. Reeves, of West Virginia, was worthy of the occasion. In Dr. H. P. Wolcott, of Massachusetts, he has a worthy successor. If the Executive Committee will condense the material into a portable volume and provide for a separate dissemination of the Lomb Prize Essays, it will do a better work for sanitary progress than has ever yet been done in any previous year in the United States.

RUPTURE OF THE VAGINA.

To the Editor of THE MEDICAL NEWS.

SIR: I wish to report, in addition to those mentioned recently in THE MEDICAL NEWS, another case of vaginal rupture which occurred in a girl nineteen years of age, as the result of coitus. The same man had had intercourse with her once before and, with the exception of considerable pain, without any bad result. This time, however, the pain was very severe and the act was followed by a profuse hemorrhage, which still continued when I saw her eighteen hours after. I found her in a bed which was soaked in blood. She was very anæmic, much exhausted, and had a weak, rapid pulse. On examination, I found no bleeding at the hymen, but about one inch beyond, on either side, were several longitudinal fissures, from half an inch to an inch in length, from which the blood was oozing at the rate of a teaspoonful in two minutes (vaginal distention by the speculum probably increased the flow to some extent). The bleeding was stopped by packing the vagina with tampons saturated with liq. ferri subsulphatis.

GEO. E. THOMPSON, M.D.

BOSTON, December 2, 1885.

NERVE STRETCHING IN THE TREATMENT OF SCIATICA.

To the Editor of THE MEDICAL NEWS.

SIR: In THE MEDICAL NEWS for January 10, 1883, page 10, I reported a successful case of nerve stretching for the relief of sciatica, performed at the Boston City Hospital by Dr. Fifield. The man has since remained entirely well, though the condition of his life has been most favorable for a recurrence, as he is now a common drunkard and tramp. As more than three years have now elapsed since the operation, the cure may, I think, be considered permanent.

Very truly yours,

ROYAL WHITMAN, M.D.

BOSTON, 93 BOYLSTON STREET,
December 12, 1885.

OBITUARY.

ALBERT H. SMITH, M.D.

IT is with heartfelt sorrow that we record the death of Albert Holmes Smith, one of the best known and most highly esteemed of Philadelphia physicians. This sad event occurred, after months of painful illness, on Monday morning, the 14th of December.

Albert H. Smith was born in Philadelphia, July 19, 1835, his father being the late Dr. Moses B. Smith. He was educated in the Friends' School at Westtown, and in the University of Pennsylvania, graduating in the Department of Arts in 1853, and in medicine in 1856. His preceptor was the late Dr. George B. Wood. He began his professional work as an assistant physician in the Frankford Asylum, leaving this position, however, after eighteen months to enter the Pennsylvania Hospital as resident physician. In 1859 he was appointed assistant physician to the Philadelphia Lying-in Charity, and in 1862 one of the attending physicians, holding the latter position until nearly a year ago. In 1862 he

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was appointed one of the obstetricians to the Philadelphia Hospital. He was one of the founders of the Philadelphia Obstetrical Society, and was its President from 1874 to 1876. He was President of the Philadelphia County Medical Society during the years 1880 and 1881. He was one of the founders of the American Gynecological Society, and was its President at the ninth annual meeting held last year. Some of his most valuable contributions to medical literature will be found in the various volumes of *Transactions* of this Society. His papers were usually of a practical character, and always enlisted the interest of intelligent physicians, even though they might not in every instance command ready assent. The following is believed to be a nearly complete list of his published papers:

A Simple Form of Inhaler for Ether (Amer. Journ. Med. Sci., April, 1869).

A Compact and Portable Obstetric Case (Amer. Journ. Med. Sci., July, 1869).

An Improved Speculum (Med. Press and Circular, Dec. 1869).

The Use of Pessaries in the Early Months of Pregnancy (Amer. Supplement to Obstet. Journ., April, 1875).

Quinia as a Stimulant to the Pregnant Uterus (Amer. Supplement to Obstet. Journ., June, 1875.

A Vulsellum for Using with the Écraseur (Medical Times, August 7, 1875, p. 709).

Retarded Dilatation of the Os Uteri in Labor (Med. and Surg. Reporter, August 11 and 18, 1877).

Use of Catgut in Gynecological Surgery (Med. and Surg. Reporter, 1878).

Application of the Rotating Burr for Denuding Tissues in the Restorative Surgery of the Female Pelvis (Trans. of the Amer. Med. Assoc., 1878, vol. xxix. p. 475).

Pendulum Leverage of the Obstetric Forceps (Gynecological Transactions, vol. iii., 1879).

The Uses of the Hot-water Douche in Parturition (Phila. Med. Times, August 16, 1879).

On the Use of Intrauterine Stem Pessaries (Proceedings of Phila. Co. Med. Soc., vol. ii., 1879–80).

Clinical Notes of a Case of Twin Pregnancy (Proceedings of Phila. Co. Med. Soc., vol. iii., 1880–81).

Relation of Cleanliness to the Prevention of Puerperal Septicæmia (Med. News and Abstract, Oct. 1881).

Sponge Tents (Med. Times, Feb. 25, 1882).

Axis Traction with the Obstetric Forceps (Gynecological Transactions, vol. vi., 1882).

Relation of the Phila. County Medical Society to the Profession and Community (Med. Times, Dec. 2, 1882).

Hot Water in Secondary Hemorrhage after Pelvic Operations (Gynecological Transactions, Sept. 1883).

The last paper Dr. Smith read before the Philadelphia County Medical Society was upon "Manual Examination in the Diagnosis of Pregnancy;" this paper was unfortunately not published.

He was the inventor of several instruments, among which may be mentioned a uterine speculum, and hard-rubber urethral dilators, and he made an important modification of Hodge's pessary which has received the approval of the profession at home and abroad; probably this simple but very useful modification of the pessary has made his name more widely known than all that he has written.

While one of the attending physicians of the Lying-in Charity, he lectured every year, not only upon obstetrics, but also upon nursing. The former lectures were in some years delivered to mixed classes, both male and female students attending them. But the most sensitive of women found no occasion to blush on these occasions by any utterance of their teacher, so refined and chaste was he in thought, and so wisely chosen were his words. Indeed, he held that no one in lecturing upon any medical subject ought to allow himself to say to male auditors that which he would be ashamed to say were women present. His lectures were prepared with great care, but only brief notes were used in their delivery; he was clear, simple, logical, and thorough in these instructions. The school in which he taught was founded by Dr. Joseph Warrington, who still lives at a very advanced age, and has been an important part in the obstetric teaching of Philadelphia in the hands of its illustrious founder, and in those of his successors. From Dr. Warrington Dr. Smith had derived his chief knowledge of practical obstetrics, and was true to the traditions of the school, and contributed much to its fame and usefulness.

Dr. Smith has for some years been justly recognized as one of the leading obstetric practitioners of Philadelphia, the profession and the people alike knowing his ability; he seemed to be nearing the zenith of his fame and usefulness, and there was apparent the promise of long life. But a few years since occasional clouds came across the bright outlook, sudden and severe attacks of illness, which an indomitable will and conscientious devotion to duty helped him to triumph over for the time, occurred, and possibly were the forerunners of the grave disorder which ended his life, the shadows of the cross which was so soon and so heavily to rest upon him. By the advice of some of his professional friends, in November, 1883, he made a visit to Sir Henry Thompson, for his diagnosis and treatment. In a few weeks he returned home somewhat improved and greatly encouraged, and immediately again engaged in active practice. Probably overwork, for Dr. Smith was a man who would not, or could not, spare himself when the sick asked his professional aid, hastened relapses, and his practice had many sad pauses when it was temporarily laid aside. Finally, about a year ago, he had to abandon attempts at work, indeed, was from that time bedridden most of the time, until death gave release from agonizing pain which tortured him by night and by day.

Dr. Smith died young; he had not completed half of his fifty-first year. The days of our years are three score years and ten, said the Psalmist; but Dr. Smith failed by nearly twenty years in securing his just allotment of time. Nevertheless, many a man may live much longer, so far as years are concerned, and accomplish much less than he did; in truth, it is granted to few men to live as noble and useful a life as did this hardworking, much-suffering Philadelphia obstetrician.

He was a wise practitioner, a skilful obstetrician, and a successful gynecologist. His surgical operations were marked by great deliberation, the utmost coolness, scrupulous attention to details, and conscientious regard to the interests of the patient.

As a consultant he was frank and honest, and held sacred the reputation and interest of his fellow-practi-

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tioner; he would by no act or ambiguous utterance cast discredit upon him, and at the same time was careful that the interests of the patient should be properly regarded. He was kind to young physicians, and many of these in Philadelphia will mourn his loss as though he had been an elder brother who was their strength and defence, their wise councillor, and faithful friend.

The sick poor always found him attentive and kind; many an hour by night and by day did he spend at sick beds, when his only hope of reward was in the consciousness of doing good, and in the gratitude of those whom he healed of disease, or rescued from death.

He was a magnanimous man, incapable of the little jealousy which so often mars professional life; large-hearted, he tried to be charitable in opinion and conduct toward all others. He made no concealment of his opinions when their avowal was necessary, no matter whether those opinions met with popular professional favor or not; his individual conscience gave him a higher law than the strong passions of the day or varying prejudices of the hour.

Dr. Smith was not less remarkable for modesty than for magnanimity; his works, not his words, praised him. If one wished to know what important operations he had done, the information came not spontaneously, but in answer to direct questions, for he had this mark of true greatness, extreme reticence as to his work, while some men of less ability, and every way inferior achievements, would be ready to parade before the public, or pour into any listening ear the merest trivialities of their professional success.

During his long and very painful illness scarcely a day passed without many messages of kind inquiry and affectionate sympathy, presents of flowers or fruits, or calls, did temporary lull in suffering permit him to see visitors, from his devoted patients. No physician ever had truer friends in his *clientèle*—they made his sick room bright, so far as possible, with kind words and generous gifts; they were knit to him as if with hooks of steel—he was so kind, so good, so affectionate, so self-sacrificing, no wonder they loved him—he was for them indeed the beloved physician.

Dr. Smith's wife and five children, two sons and three daughters, survive him, now mourning an irreparable loss, a loss which human utterance cannot magnify, and which the largest human sympathy cannot lessen.

NEWS ITEMS.

THE PHILADELPHIA POLYCLINIC having outgrown its quarters at Thirteenth and Locust Sts., will, after the winter months, occupy its new building, Broad and Lombard, where it is expected to open wards and private rooms for patients needing treatment in bed.

The journal edited by the faculty will be increased in size after the first of the year.

THE ANNUAL REPORT OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA.—At the December meeting of the College, the standing committees presented their annual reports.

The Library Committee reported that the library now contains 33,686 volumes and 1393 unbound pamphlets, an increase in the year of 2592, as compared with 1261 in 1884, and 869 in 1883.

The books are classified as follows:

General Library	18,069
Lewis Library	8,736
On special deposit:	
Mütter Museum	86
S. D. Gross Library	5,130
The Hodge collection	1,665
Total	33,686

The library is in receipt of 184 current periodicals devoted to medicine and the collateral sciences.

The number of books taken out during the year, not including the large number which have been consulted in the rooms, was 1231. In the General Library all the books are catalogued, with the exception of the dictionaries, journals, reports, and pamphlets. In the Lewis Library, all the books are catalogued to date.

During the year additional bookcases were erected in the large hall, affording accomodation for about 2600 books. These cases are now full.

The Committee on Publication reported that during the year, papers had been read by fourteen Fellows. In addition to these a paper by Dr. Graham and one by Dr. Orville Horwitz, were communicated by Dr. J. M. DaCosta, and an address on Photography of the Larynx was read by Dr. Theodore R. French, of Brooklyn. The total number of pages in the volume of *Transactions for 1885*, to this date, is about 232. Through the generosity of the President, the committee had been enabled to employ a stenographer and thus obtain a full report of the discussions.

The Committee on the Directory for Nurses reported that the number of nurses registered December 1, 1884, was 419. The present number is 475, showing a gain of 56. During the year the loss by dismissal, resignation, death, and removal was 18. The number of applicants for registration was 118, of whom only 68 were registered. The largest number of nurses sent out in any one month, was in January 1885, 119; the smallest in August, 47. The total number of nurses supplied during the last four years has been in 1881–82, 342; 1882–83, 733; 1883–84, 913; 1884–85, 1003. Seventeen wetnurses were furnished during the year.

The Committee has recently assisted the New York Academy of Medicine in establishing a similar directory for nurses in that city.

RESIGNATION OF PROF. C. A. LINDSLEY, M.D.—PROF. C. A. LINDSLEY, M.D., has resigned the position of Dean of the Medical Department of Yale College, and Dr. Herbert E. Smith has been appointed his successor.

INTERNATIONAL HYGIENIC CONGRESS IN ROME.—We learn that the Italian Government has again postponed the meeting of the International Hygienic Congress. It is generally conceded that the Congress will not meet this winter.

SCIENCE AND CHIVALRY.—In a recent number of *L'Union Médicale*, under the head of correspondence, the following letter is published:

"Thorens has related the sad ending of a duel at

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which he assisted. The wound caused pleurisy-empyema, and death ensued. Ought not we to recommend to the surgeons some precautions that one takes in every operation? We should demand that the foils be passed through a flame, or put in carbolic acid, and that the combatants as well as the surgeons should wash their hands in carbolic solution. The surgeons should have carbolic solution ready to apply to a wound at once. We should like to have the pistols and balls disinfected. One fights sometimes for reasons that so little affect one's honor that the precautions deemed necessary for the slightest operation should be taken. One sees that the blades are sharp; we demand that they should be clean, medically."—*Canadian Practitioner*, Dec. 1885.

RESOLUTIONS ON THE DEATH OF DR. SAMUEL S. CLARK.—The Board of Managers of the State Asylum for the Insane at Morristown, N. J., learn with the deepest feelings of sorrow, of the death of their honored Vice-President, Dr. Samuel S. Clark, which occurred at Belvidere, on Monday, the 23d ult.

Dr. Clark came of a distinguished ancestry, from whom he inherited those sterling qualities which made his life so useful and honored. His grandfather, Rev. Joseph Clark, left the pulpit to enter the Revolutionary army, and served with distinction on the staff of General Washington. His father, Rev. John Flavel Clark, was also a distinguished Presbyterian clergyman, and one of the founders of the American Board of Foreign Missions, and, subsequently, became one of the faculty of Princeton College. With such ancestry, it was but natural that Dr. Clark should be the noble man that he was.

He was born at Flemington, N. J., November 8, 1825, and entered Princeton College in 1841. After a three years' course in that institution, he entered and graduated from the medical department of the University of New York, and for nearly thirty-seven years practised medicine in Belvidere. His kindness of heart, his faithfulness as a friend, his wisdom as a counsellor, his tender sympathy and skill as a physician, endeared him to the homes and families in the rounds of his large practice.

His clear mind, his fine culture, his habits of careful study, and his acquaintance with the best results of science, placed him in the front rank of his noble profession. He was active and public spirited as a citizen, always promoting the best interests of the community in which he lived. As a member of the Board of Managers, he was firm in his convictions of right, yet considerate and forbearing with those who differed with him. Withal, he was modest and unassuming, and always a gentleman.

He was one of the most companionable of men, and his fine social qualities endeared him, not only to his associates in this Board, and to the masses with whom he came in contact, but to eminent men in all professions throughout his native State.

More than an ordinary man has fallen; a happy home has been made desolate and a devoted wife and daughter, upon whom his fondest affections were centered, mourn for one whose companionship was more precious to them than all other earthly treasures. We tender to them our deepest sympathy.

We record this tribute to his memory in our book of minutes, and request our Secretary to transmit a copy of the same to his sorrowing family.

BOYLSTON MEDICAL PRIZE QUESTIONS.—At the annual meeting of the Committee for 1885, it was voted that a prize of two hundred dollars be awarded to Edward S. Stevens, M.D., of Harveysburg, Ohio, for a dissertation on "The Best Preliminary Education for the Study of Medicine."

The following are the questions proposed for 1886:

I. Influence of the Soil as a Factor in the Causation and Spread of Typhoid Fever.

The author of a dissertation on the above subject, considered worthy of a prize, will be entitled to a premium of three hundred and fifty dollars.

II. The Relation of Hospitals to Medical Education.

The author of a dissertation on the above subject, considered worthy of a prize, will be entitled to a premium of two hundred dollars.

Dissertations on the above subjects must be transmitted, post-paid, to Morrill Wyman, M.D., 24 Church St., Cambridge, Massachusetts, *on or before the first Wednesday in April*, 1886.

The following are the questions proposed for 1887:

I. On the Identification of Human Blood in Suspected Stains.

II. Original Investigations on the Pathology of so-called Uræmic Symptoms.

The author of a dissertation on either of the above subjects, considered worthy of a prize, will be entitled to a premium of two hundred dollars.

Dissertations on these subjects must be transmitted as above, on or before the first Wednesday in April, 1887.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY FOR THE WEEK ENDING DECEMBER 12, 1885.

LIPPINCOTT, GEORGE C., *Passed Assistant Surgeon*.—Detached from Navy Yard, Washington, and wait orders.

DEANE, C. W., *Passed Assistant Surgeon*.—Ordered to the U. S. R. S. "Dale," as relief of Passed Assistant Surgeon G. P. Lumsden.

LUMSDEN, G. P., *Passed Assistant Surgeon*.—Ordered to Naval Hospital, Washington.

LOVERING, P. A., *Passed Assistant Surgeon*.—Detached from U. S. R. S. "Wabash," and wait orders.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, FROM DECEMBER 8 TO DECEMBER 14, 1885.

EVERTS, EDWARD, *First Lieutenant and Assistant Surgeon*.—Ordered from Department of Columbia to Department of Arizona.—*S. O.* 279, *A. G. O.*, December 5, 1885.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE-HOSPITAL SERVICE, FOR THE WEEK ENDING DECEMBER 12, 1885.

YEMANS, H. W., *Passed Assistant Surgeon*.—Granted leave of absence for fifteen days, December 7, 1885.

BRATTON, W. D., *Assistant Surgeon*.—When relieved to proceed to San Francisco, Cal., December 12, 1885.

NORMAN, SEATON, *Assistant Surgeon*.—Appointed an Assistant Surgeon December 11, 1885. Assigned to duty at New York, N. Y., December 12, 1885.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLVII. SATURDAY, DECEMBER 26, 1885. No. 26.

ORIGINAL ARTICLES.

RUPTURE OF THE LIGAMENTUM PATELLÆ, AND ITS TREATMENT BY OPERATION.[1]

BY HENRY B. SANDS, M.D.,

PROFESSOR OF THE PRACTICE OF SURGERY IN THE COLLEGE OF PHYSICIANS AND SURGEONS; SURGEON TO THE ROOSEVELT HOSPITAL.

THREE forms of injury to the knee are closely allied by their causes, effects, and principles of treatment. These injuries are, simple transverse fracture of the patella, subcutaneous rupture of the tendon of the quadriceps extensor muscle above that bone, and a corresponding lesion of the inferior division of the tendon, known as the ligamentum patellæ. The experience I have gained in the management of two cases of the last-named accident which have fallen under my observation, has led me to a brief study of its literature, from which I have gleaned a few facts of sufficient interest, perhaps, to justify me in bringing the matter to the notice of the Society. At the same time I desire to put on record a number of cases of this injury hitherto unpublished, and to describe an operation for uniting the ends of the divided ligament by suture, which I have performed upon the patient now exhibited before you.

Compared with the fracture of the patella, rupture of the ligamentum patellæ is a rare event. Maydl,[2] whose statistics are the largest I have yet met with, was able to collect only sixty-five examples of the latter form of injury. In this paper I am able to report thirteen other cases treated in the Bellevue, New York, St. Luke's, and Roosevelt Hospitals. In order to form a rough estimate of the comparative frequency of the two forms of injury, I have caused a search to be made of the entire records of the four hospitals above mentioned, and have obtained the following result:

	Fracture of patella.	Rupture of ligamentum patellæ.
New York Hospital	150 cases.	3 cases.
Bellevue Hospital	140 "	7 "
Roosevelt Hospital	44 "	2 "
St. Luke's Hospital	19 "	1 case.
Total	353 cases.	13 cases.

A comparison of these figures gives a ratio of about twenty-five to one.

The relative infrequency of rupture of the patellar tendon may be ascribed chiefly to its great strength and thickness, its relatively slight exposure to direct injury, and to the great mechanical advantage with which indirect violence often acts in causing fracture of the patella. Thus, as has been remarked, when the knee is bent, and a sudden and powerful contraction takes place of the quadriceps extensor muscle, as in endeavoring to prevent the body from falling backward, the patella is acted upon by two forces which, as its upper and lower borders are then free from contact with the femur, may cause it to break, in the same manner as a stick may be broken by bending it across the knee.

The remarks which I wish to make may conveniently take the form of a commentary upon the cases which have come under my care, or which, as will be seen in the appended table, have been gathered from the hospital records above mentioned. I shall give only my own cases in detail.

CASE I.—Patrick F., a car driver, thirty-five years of age, was admitted to my department of the Roosevelt Hospital, October 19, 1882. Ten years previously his right patella had been fractured by striking his knee against the pole of a truck. Five months later the same accident recurred, the final result being a fibrous union between the fragments, which remained separated a distance of two inches. On the day of his admission into the hospital, while in the act of hitching his horses to a street car, he missed his footing in attempting to ascend the platform, and felt something suddenly give way. An examination detected evidence of an old fracture of the right patella, which had been broken about its middle. The distance between the fragments measured two inches, and the interval was occupied by a broad, thick, fibrous band. In the normal situation of the ligamentum patellæ was found a shallow depression, dependent upon a complete rupture of the ligament, which seemed to have been torn close to its inferior extremity. Patient entirely unable to extend the leg. Much tenderness and swelling of knee.

Treatment.—Extension of limb to horizontal position. Ice bag applied to knee.

Oct. 28.—Pain and swelling subsided; vertical suspension of injured limb; rubber bandage to knee.

Nov. 14.—Apparatus removed; limb kept extended, and raised on a pillow. The gap below the patella has filled up.

Dec. 3.—Waterglass bandage applied from ankle to thigh. Patient allowed to walk.

7th.—Discharged from hospital, wearing splint.

Nov. 21. 1885.—Patient reëxamined three years after injury. He states that, disobeying the instructions he had received on quitting the hospital, he removed the splint a few days afterward, and began to use the limb more freely. His knee remained stiff, however, until five weeks later, when, in descending a staircase, and being within two steps of the bottom, he imagined he had reached the end; and, putting forward his left foot, a strain came on his right knee, which was suddenly and forcibly bent. Some pain followed, and he thought he was severely hurt; but the next day he discovered that

[1] Read before the New York Surgical Society, Dec. 8, 1885.

[2] Zeitschrift für Chirurgie, vols. xvii. and xviii., 1882 and 1883.

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he was better, and that he could readily flex and extend the leg. At present, as he is now exhibited before you, he can flex it a little beyond a right angle, and can make complete extension with some force. He says he is not aware of any difference in the strength of the opposite limbs. Separation of patellar fragments two inches. Length of ligamentum patellæ same on both sides.

Evidently, in this case, the rupture of the ligamentum patellæ was due to the severe strain to which it had been subjected by the weight of the body, and the forcible contraction of the quadriceps extensor muscle. Whether transverse fracture of the patella usually results from direct or indirect violence is an open question. I agree with those, however, who contend that this injury may generally be traced to the latter cause; and I am sure that the same is true regarding rupture of the ligamentum patellæ. Madyl, in investigating the etiology of this accident, analyzed 44 cases, in only 5 of which the rupture could be attributed to direct violence. Most often it is occasioned by a powerful contraction of the quadriceps, occurring in an attempt to save the body from falling backward; at other times, from falling forward or sidewise. Violent flexion of the leg, accompanying a fall from a height, may produce it; and it has been known to occur spontaneously during an attack of convulsions, as also during forced flexion practised with the object of overcoming an anchylosis of the knee. In the last case muscular contraction cannot be concerned in the rupture, which must be ascribed in part to pathological changes in or around the affected joint. Adhesion and fixation of the patella, or rigidity and contracture of the quadriceps muscle, may, by preventing the descent of the patella when the knee is bent, cause the ligamentum patellæ to be lacerated during forcible flexion, either manual or instrumental.

In some of the cases I have collected from our hospital records, the agency of muscular contraction in causing the rupture is plainly evident. The case just narrated (X.) is one in point. In another case (IV.), the man, while wrestling, was thrown down, striking the left knee. As he fell, he was conscious that something had given way; and on trying to get up, he found himself unable to extend the right, or opposite, leg. Another man (VII.) stumbled while carrying a barrel of flour; and in a violent but unsuccessful effort to save himself from falling forward, heard something snap and felt his knee suddenly give way as he came down with his left leg helpless. Another (VI.), whose heel had been caught between two flagstones, and who squatted quickly to pick up his hat, felt something give way, and immediately fell to the ground, unable to extend his legs. In this case the rupture occurred on both sides. In Case XIII. the man slipped while crossing the street, and did not strike the knee. In Case XII., to be related presently, the injury was certainly due to direct violence, a heavy piece of timber having fallen across the knee. One patient (IX.) fell from a roof, sustaining fracture of the left thigh and rupture of the left ligamentum patellæ. Here the violence may have been direct, as also in Case II., in which a sailor fell from a jibboom a distance of thirty feet, striking his knee; and in Case XI., in which a fireman was buried beneath a falling building, and, on being extricated, was found to have received a fracture of the femur, a rupture of the ligamentum patellæ, and severe contusion of the injured limb. In Case I. the patient fell from a wharf into the water, hitting his knee against a boat. Whether, in the four cases last described, the rupture of the ligament was caused by direct injury, by extreme flexion of the knee, or by muscular contraction, must be a matter of doubt; and, in the remaining examples, the doubt concerning this point must be still greater. Thus, one man (V.), while engaged in carrying a plank, fell upon his left knee; another, who was assaulted and knocked down in front of his lodging house, struck his knee against the doorstep. In Case III., the patient, while walking, stumbled and fell, striking his knee against the ground. Now, in all these cases, the circumstance that the knee was hit seems to favor the supposition that the rupture was occasioned by direct violence. But it is quite likely that such an inference would be wrong, and that the fall upon the knee may have been the result, not the cause, of the rupture. This explanation is corroborated by the probability that, in all these instances, the extensor muscles were forcibly contracted at the moment the accident happened.

It is well known that rupture of the ligamentum patellæ is far more frequent in the male than in the female sex. I have been unable to find more than five published cases in which females have sustained this injury, and the thirteen subjects, whose cases I have recorded, were all males. The relative frequency of the accident in the latter may be accounted for by their greater exposure to its exciting causes, and by the greater strength and activity of their muscles.

In one case (VI.), already mentioned, the rupture took place on both sides simultaneously. Four other cases of this double injury have been recorded, namely, two by Shaw,[1] one by Gibson,[2] and one by Hamilton.[3] In three cases (III., VII., X.), the rupture occurred in persons who had previously suffered from transverse fracture of the patella on the same side. In Case III. the patella had been broken one year previously, and ligamentous union had taken place. In Case VII. the fracture occurred eight months before the rupture, and the uniting band measured two inches in length. In Case X. the fibrous band was likewise two inches long, while a period of ten years intervened between the fracture and the rupture. I have found elsewhere only four other examples of this singular sequence,[4] from which, I think, two conclusions may be drawn. The first is, that a fracture of the patella may establish a predisposition to rupture of the ligamentum patellæ. In Flower's case, in which the rupture took place at the patellar attachment, this end of the ligament seemed to have ossified during the repair of the fracture; and to this

[1] Trans. of Path. Soc. of London, vol. v., 1854.
[2] Gibson, Surgery, vol. i. p. 395, sixth edition.
[3] Hamilton, Fractures and Dislocations, sixth edition.
[4] Nélaton, Archives Générales, 1858, p. 704, Obs. vi.; Flower, Trans. Path. Soc. of London, vol. vii., 1856; Bulley, Med. Times and Gazette, London, 1864; Zeis, Archiv für klinische Chirurgie, vol. vii. p. 755.

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circumstance he was inclined to ascribe the predisposition. Such could not have been the explanation, however, in Markoe's case (III.), nor in the one I have reported (X.), as in both of these there was no evidence of ossification of the ligament, which, moreover, was found to be ruptured at its tibial insertion. In the majority of instances, probably, the essential cause of the predisposition is a weakness of the limb induced by the earlier injury, which renders the individual less able to avoid the accidents that determine the later one. The second inference is, that the fibrous bond of union between the fragments of a broken patella may be able to bear a greater strain than the normal patellar ligament. This may be the fact, even when the uniting band is of considerable length, as in the two cases I have recorded. Additional evidence of the occasional strength of the ligamentous union of patellar fragments is afforded by the numerous examples of refracture of the patella in which the second fracture has taken place through a part of the bone hitherto uninjured. It is noteworthy that, when rupture of the ligamentum patellæ has been preceded by fracture of the patella, the two lesions have always been found to exist on the same side of the body. The longest recorded interval between the two accidents is ten years, in Case X.; the shortest, eleven weeks, in Flower's case.

In seven of the cases I have reported, the seat of rupture is definitely stated. In three it took place at the upper, and in four at, or near, the lower attachment of the ligament. In two cases a small fragment of the patella was torn off; in one of these it could be distinctly felt, and in the other it gave rise to occasional crepitus when the ruptured parts were approximated. These results are in accordance with the general rule, that the ligament is far less liable to give way in its middle than at one of its extremities—the lower being involved in about 50 per cent. of all cases. The rupture, wherever it occurs, is usually complete; my notes of thirteen such cases furnish only a single instance in which a portion of the ligament remained intact.

The symptoms were in every case so plain as to leave no doubt concerning the nature of the injury. In one, the amount of retraction of the patella is said to have been slight; in another, it was two inches; but in all the gap between the severed parts could be distinctly made out. Prominent among the symptoms is inability to extend the leg. So far as I know, this loss of power is absolute when, as is usual, the rupture is complete. In transverse fracture of the patella, on the other hand, it occasionally happens that some power of extension remains immediately after the accident. An illustration of the preservation of this function to a remarkable degree came to my notice a few weeks ago, when a gentleman entered my office to consult me about an injury to his knee, which he thought he had sprained a few hours previously while playing in a tennis court. In the meantime he had been able to walk, and had gone down town to the stock exchange, and returned in a street car without suspecting the gravity of his injury, which, to my surprise, I found, on examination, to be a transverse fracture of the patella. The fragments, however, were in contact, and bony crepitus was well marked. We can readily understand why no such exception should ever be met with when the ligamentum patellæ is completely ruptured, since, under these circumstances, nothing is left to transmit the force exerted by the quadriceps, except the insignificant aponeurotic attachment of a few of its fibres to the tibia.

The condition of the knee-joint was noted in six cases, and, in all but one, the joint is said to have been distended and painful soon after the accident. Whether, as seems probable in this form of injury, the laceration extends into the joint, and whether the distention of the latter is due to the presence of blood or of inflammatory effusion, are points which have not yet been demonstrated. In any case, the swelling generally subsides, under appropriate treatment, in the course of a week or ten days.

The treatment adopted in most of the cases herewith reported was essentially the same as that usually followed in fracture of the patella, comprising extension of the knee, elevation of the injured limb, cold applications to the joint, and the use of pads, straps, and bandages for the purpose of approximating the ends of the ruptured ligament. As in the case of fracture of the patella, the retraction of the upper end appears to be largely owing to distention of the knee-joint with fluid; and, until this has been absorbed or otherwise got rid of, any attempt to force it downward will prove futile, and perhaps injurious. In one case (III.) in which compresses and tight bandages were employed very early, they certainly caused an aggravation of the symptoms, which compelled a suspension of this part of the treatment for a period of four weeks. The final result, however, was satisfactory.

As a rule, such treatment as that described is followed by a fair amount of recovery of the functions of the injured limb. I regret that the notes of some of the cases I have collected are so defective regarding the results obtained as to possess little or no value. We know, nevertheless, that the continuity of the ruptured parts is usually restored in the course of six or eight weeks, the knee meanwhile gradually regaining its normal size and shape. Afterward the joint generally becomes movable, and the power of extension returns to a variable degree. Occasionally both the physical and functional results are excellent, as in Weir's case (XIII.), in which, sixteen years after the injury, no difference could be discovered by measurement between the length of the patellar ligaments of the opposite sides, and in which the patient declared that the limb injured was quite as good as its fellow. Such a result, however, is exceptional, and the patella is apt to remain permanently more or less retracted, sometimes to the extent of several inches. Generally, as after fracture of the patella, the impairment of the power of extension bears a direct ratio to the length of the fibrous band by which the severed parts are united; but this rule is not without exceptions. A case has been recorded in which a lengthening of six centimetres did not prevent complete voluntary extension of the leg; on the other hand, the power of extension may be seriously impaired, even when the uniting medium is short and firm. Here the disability is doubtless owing

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to some complication or sequel of the rupture, such as chronic inflammation of the knee-joint, atrophy of the quadriceps muscle, or adhesions between the opposed surfaces of the upper part of the synovial sac which lies underneath the quadriceps. In such cases flexion, as well as extension, is usually limited.

It is impossible to determine in what proportion of cases the power of extension is greatly damaged; but the number is larger than one would infer from a perusal of the published reports, in which very inferior results are often put down simply as "cures." We may be sure, however, that in a certain number of instances in which no union takes place between the ruptured parts, the power of extending the leg will be entirely abolished, and the act of walking rendered impossible without assistance. Hitherto such cases have been treated by some form of mechanical apparatus designed either to prevent the knee from being bent, or to make artificial extension by means of an elastic force; but, so far as I am aware, no attempt has been made to reëstablish the function of extension by an operation intended to restore the continuity of the ruptured ligament. Maydl states that, in a posthumous work by Veslingius (*Obs. Anat. et Posthum.*), published 1740, he found a notice of a case in which tenorraphy of the ligamentum patellæ was performed with success. He does not say, however, whether the injury was old or recent, and I have been unable to procure a copy of the work to which he alludes. In the case of the patient now exhibited I operated eight months after the accident, by bringing together the separated ends of the ruptured ligament, and uniting them by sutures. The history reads as follows:

CASE II.—Charles K., a healthy man, forty-four years old, by occupation a rigger, was admitted under my care in the Roosevelt Hospital seven months ago, and gave the following history. In September, 1884, a heavy piece of timber fell across his right knee, and he was at once disabled and could neither walk nor extend the leg on the injured side. The accident occurred at sea, and the patient received no treatment beyond confinement in bed on account of pain and swelling of the knee. In December he entered a hospital in Calcutta, where the joint was incised to allow the escape of fluid. He recovered from the operation, but remained as weak in the knee as before, being unable to walk except when he wore a splint applied to the back of the limb in order to keep it straight. When he came under my charge he was still wearing a leather splint, which, although apparently well suited to its purpose, did not render locomotion easy. The gait was slow and unsteady, and the patient, otherwise in good health, was greatly discouraged in consequence of his infirmity, and declared his willingness to undergo any operation in the hope of regaining the usefulness of his limb. On examination the right knee was found to be tender on pressure, and moderately swollen from an accumulation of fluid in the joint. The patella was displaced upward about two inches; it was freely movable laterally, but could not be drawn down to its normal position. Above, its relations with the quadriceps could be readily distinguished, but below, it evidently had no connection with the tibia.

As nearly as I was able to ascertain, the ligamentum patellæ had been completely ruptured close to its inferior point of attachment, and no attempt had been made to repair the injury. In place of the ligament there was a gap into which the skin could be readily depressed until the fingers encountered the femoral condyles. The power of extending the leg was entirely absent, and the patient, when lying upon his back with his legs extended, was unable to raise his foot from the bed.

On May 19th last, I commenced an operation by making a longitudinal incision, six inches in length, in the median line on the anterior aspect of the knee, the centre of the incision being opposite the lower edge of the patella. The cut was subsequently lengthened both upward and downward until it measured nine inches. On exposing the injured parts, in doing which the knee-joint was freely opened, it was found that the ligamentum patellæ had been torn away from the spine of the tibia, which was now covered by only a small amount of dense fibrous tissue, sufficient, nevertheless, to allow a firm hold for sutures. A little more than an inch of the ligament, in good condition, was normally attached to the patella. There was a complete lack of union between the ends of the severed ligament, and a great deal of difficulty was experienced in bringing them together after they had been freshened with the knife. Before the upper end could be drawn down and placed in contact with the lower one, it became necessary to make many deep oblique and transverse incisions into the median and lateral portions of the quadriceps; and even when this had been done as far as was deemed prudent, considerable force was required to secure apposition, which was maintained by two sutures of stout silver wire, the ends of which were twisted, cut short, bent flatwise, and buried in the wound. The mucous and alar ligaments were found redundant, and were partly removed with the curved scissors. The incisions in the capsule of the joint were closed by catgut sutures, and the external wound was united, except at its upper and lower ends, in the same manner. Two bone drains, one on each side, were inserted into the joint through openings made for that purpose, and one into each extremity of the median incision. During the operation a solution of mercuric bichloride, 1 : 1000, was applied freely to the wound, which was afterward covered with iodoform gauze. The limb was next enveloped in a moss-bag, moistened with the bichloride solution, and finally fastened to a long straight wooden splint, provided with a foot piece. Previous to the operation the knee and adjacent parts had been shaved, scrubbed several times with soap and water, then washed with oil of turpentine, and finally disinfected with a solution of mercuric bichloride.

The subsequent progress of the case was uneventful, except that, during the first four days, the patient complained of almost constant pain. This was so severe on the second day that I removed the dressing and examined the wound, which, however, showed nothing which would account for the man's suffering.

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The drainage-tubes were cleared of a few clots of blood, and a fresh dressing like the first was applied. On the fourth day the pain began to diminish, and soon afterward it disappeared altogether. The wound was not dressed again until July 7th, seven weeks after the operation. It was then discovered that the wound had long before healed by primary union, except at its lower angle, where a minute skin ulcer remained, marking the site of one of the drainage-tubes. The wounds made for draining the joint were entirely closed. The patella was movable, as was also the knee-joint; but no attempt was made to bend the leg beyond a few degrees. On July 21st the patient was allowed to get up, wearing a water-glass bandage. This could not be worn with comfort, and, a week later, was replaced by a leather splint, with which the patient walked about without much difficulty. He continued to use the splint until October, when he laid it aside. Meanwhile the knee has assumed nearly its natural size and shape, and it is evident that continuity of the ruptured parts has been reëstablished.

My house surgeon, Dr. George S. Huntington, has, at my request, furnished me with the following precise description of the patient's present condition, which can be verified by the members of the Society:

Measurements.—Thigh: Circumference at upper border of patella, right thigh 13¾″, left thigh 14″; circumference at junction of middle and lower third, right thigh 13¼″, left thigh 15¼″.

Knees: Circumference of knee-joint over the patella, on both sides 13.9″.

Leg: Circumference at junction of upper and middle third, right leg 12¾″, left leg 13″; distance from tip of internal malleolus to lower border of patella, right side 15.6″, left side 14.4″.

Functional Result.—A line drawn from the middle of the upper border of the great trochanter to the centre of the outer surface of the external condyle is taken as the axis of the thigh. The axis of the leg is represented by a line drawn from the tip of the external malleolus to a point just anterior to the superior tibio-fibular articulation. On the left side in full extension of the leg, these lines form with each other an obtuse angle of 174°. On the right side, when patient is in the recumbent position, the amount of voluntary extension is as follows: The axis of thigh and leg forming an obtuse angle of 148°. When the patient is in a sitting posture, the amount of extension is increased to 155°.

Passive motion: Extension of leg possible to the normal limit. Flexion to a right angle. Rotation of the leg the same on both sides.

I will add that, in walking, the patient can easily and completely extend the leg: that for several weeks past he has been able to go up and down stairs without assistance; and that his limb is so steadily gaining in strength and freedom of action as to warrant the hope of further improvement. At all events, I think it will be admitted that, in this case, the operation has conferred a great benefit upon him by restoring the usefulness of the limb; and that, in similar cases, suturing of the ligament deserves a further trial. The principal difficulty likely to be encountered, when the injury is not of recent date, is that of bringing into contact the ends of the ruptured ligament. In my case this was accomplished only after the rectus and the vasti muscle had been extensively scored, and even then the parts could not be brought together without decided tension. I am inclined to believe that the pain the patient complained of during the first four days after the operation was caused by the traction of the sutures, and that it was relieved only when the sutures had cut through and receded far enough to moderate the existing tension. And, although I neglected to note the level of the patella immediately after the operation, its present elevation may be held as proving that the segments of the ruptured ligament separated from each other to a considerable extent after they had been sutured, the gap so formed being now occupied by newly formed ligamentous tissue, like that which, in ordinary cases of this injury, is furnished to repair it.

That which has most interested and gratified me in this and in several other severe operations I have performed, in which the knee-joint has been involved, is the impunity with which this articulation may be opened, and indeed somewhat roughly handled, provided antiseptic precautions are scrupulously observed. This fact was especially forced upon my attention in a case of old fracture of the patella, in which I wired the fragments, one year ago, in the Roosevelt Hospital. The operation was performed in the usual manner, but the fracture was found to have been comminuted, and the fragments could not be brought into apposition without much difficulty, nor until the quadriceps muscle had been extensively exposed and repeatedly cut, in order to obtain the necessary elongation. Meanwhile, the bleeding was free, the knee-joint was frequently sponged out and irrigated, and the operation was prolonged, as well as severe; yet the patient recovered without an unpleasant symptom, under the use of a single dressing; and when this was removed, at the end of eight weeks, I discovered that the wound had healed throughout by the first intention, and that neither suppuration nor adhesive inflammation had taken place within the joint, which had a limited range of easy motion. Such a case affords, according to my judgment, indubitable proof of the marvellous improvements in operative surgery which have been wrought by antiseptic methods; and, when I see it stated in a standard American text-book, published only three months ago, that "the alleged superiority of the antiseptic method cannot be said to have been as yet demonstrated," I am amazed at the author's incredulity. Even among those who practise antiseptic surgery, however, some hesitation is occasionally felt about opening the larger joints, and operations involving the healthy knee-joint are at present regarded by many with the same kind of apprehension which, not a great many years ago, deterred surgeons from invading the peritoneal sac. The latter procedure is, as we now know, reasonably safe, and I cannot doubt that the operation of opening the knee-joint is already, when properly performed, far safer. I confidently anticipate the time when skilful and careful surgeons will be able to divest it of all danger either to life or limb; and,

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Cases of Rupture of the Ligamentum Patellæ.

No.	Hospital.	Age and sex.	Date.	Observer.	Side of rupture.	Cause.	Condition.	Treatment.	Results.
1	New York.	32, M.	1844	.....	Right.	Fall from a wharf into water, striking knee against a boat.	Joint much swollen; rupture at patellar insertion, carrying away a minute fragment of bone; patella not much retracted, and easily brought down.	Leeches, poultices, low diet; at end of ten days pads and straps.	Firm union; discharged "cured" at end of four months.
2	New York.	26, M.	1854	Watson.	Right.	Fall, thirty feet, striking knee.	Rupture of ligament just above tibial insertion: joint distended and painful.	Extension, cold lotions; crutches after four weeks.	Discharged "cured" at end of two months.
3	New York.	32, M.	1859	Markoe.	Left.	Slipped and fell, striking left knee.	Marks of fracture of patella sustained a year previously; fragments united by ligament; patellar ligament ruptured at tibial insertion; joint greatly distended and painful.	Single inclined plane; evaporating lotions; compress and bandage, which had to be removed on account of pain; reapplied four weeks later.	Discharged eleven weeks after accident, with firm union.
4	Bellevue.	60, M.	1870	Hamilton.	Right.	While wrestling, was thrown on left knee, and felt something give way; on attempting to get up, was unable to extend right leg.	Ruptured ligamentum patellæ.	Plaster-of-Paris bandage; figure-of-8 bandage to knee.	
5	Bellevue.	40, M.	1874	.....	Left.	While carrying a plank, patient fell, striking left knee.	Complete rupture of ligament; patient unable to stand or to extend leg; no pain or distention of joint.	Plaster-of-Paris bandage day after accident; renewed three times, and finally removed at end of six weeks.	Ligament united to tibia; knee somewhat stiff when patient was discharged eight weeks after injury.
6	Bellevue.	50, M.	1874	Wood.	Both.	Patient, whose heel had been caught between two flagstones, squatted quickly to pick up his hat, felt something give way, and fell to the ground helpless.	Each patella retracted from rupture of ligament; any extension of legs absolutely impossible.	Commenced seven months after injury; posterior splint, figure-of-8 bandage.	Left hospital a fortnight after admission; result not known.
7	Bellevue.	22, M.	1874	.....	Left.	Patient while carrying a barrel of flour, stumbled and made a powerful effort to save himself from falling forward; heard something snap as he fell; found left leg helpless.	Signs of old fractured patella eight months previously; firm fibrous union two inches in length; immediately below patella a groove corresponding with ruptured ligament.	Posterior splint.	
8	Bellevue.	52, M.	1878	S. Smith.	Left.	Was knocked down, striking knee against doorstep.	Much swelling and effusion in joint; rupture of ligament close to its attachment to patella.	Posterior splint; ice bag; afterward figure-of-8 bandage, and traction with adhesive plaster.	Patient discharged with stiff knee eight weeks after injury.
9	Bellevue.	10, M.	.....	.....	Right.	Fall from a roof.	Fracture of left femur; rupture of right ligamentum patellæ, incomplete, a few fibres only remaining intact.		
10	Roosevelt.	35, M.	1882	Sands.	Right.	Slipped while getting on a street car, and felt something give way.	Marks of old fracture of patella; fibrous uniting band two inches long; ligamentum patellæ ruptured near its tibial insertion.	Ice bag; extension, at first horizontal, afterward vertical; rubber bandage.	Recovery, with useful limb.
11	Bellevue.	34, M.	1884	Dennis & Bryant.	Left.	Buried beneath a falling building.	Rupture of ligamentum patellæ; fracture of lower third of femur; severe contusion of limb.	Double inclined plane for thirteen days; Buck's extension twenty-five days; plaster-of-Paris bandage six weeks.	Two years after injury patient has a stiff knee with the leg extended; flexion easy to the extent of 5–10 degrees, where it is suddenly checked, apparently in consequence of adhesion and shortening of the quadriceps at seat of fracture. Ligamentum patellæ reunited and firm, being lengthened only ½ an inch. Patella movable laterally, but not downward. Contraction of quadriceps causes no tension of ligamentum patellæ.
12	Roosevelt.	44, M.	1885	Sands.	Right.	Blow from a heavy piece of timber.	Eight months after accident power of extension entirely lost; patella retracted two inches; a depression in place of ligamentum patellæ which seems to have been ruptured near tibial attachment.	Joint opened; ligament sutured	Six months after operation power of extension regained sufficiently to enable patient to walk with ease.
13	St. Luke's.	47, M.	1869	Weir.	Left.	Slipped while crossing street; did not strike knee; walked with assistance twenty or thirty feet after accident.	Rupture of patellar ligament.	Limb extended in plaster-of-Paris splint for six weeks.	Began to walk soon after removal of splint. Sixteen years later (1885) injured limb as good as other. Ligament same width and length as other by measurement.

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whenever this period arrives, our time-honored, but clumsy, tedious, and uncertain method of treating both fracture of the patella and rupture of its ligamentous attachments may well be abandoned in favor of some form of operation calculated to secure an immediate union of the divided parts.

ADDITIONAL NOTES ON ABSORBENT COTTON AS AN ELECTRODE COVERING.

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SINCE the use of absorbent cotton for the above mentioned purpose was recommended by the writer, in a note published in THE NEWS, of February 7th last, quite a general adoption of the suggestion has occurred among electrotherapeutists. A further experience of nearly a year since the publication of the note convinces me that the suggestion, though relating to a minor detail, is one of no little practical importance, and should be invariably adopted for electrodes of all sizes when a covering is required.

It has been objected that absorbent cotton is inferior to sponge, in covering the two larger sized electrodes of Erb's scale, since it cannot be so well retained in place. For these large electrodes, a method different from the one that has been described should be used. A bundle of the cotton should be unrolled, laid flat on the table, and a piece of approprite size cut out with a pair of scissors, allowance being made for the necessity of covering the edges by lapping. This piece, and another on top of it to add to the elasticity, can be readily retained in place by a few turns of fine spool cotton wound over both back and face; or, more neatly, by stitching the edges across the back. Two or three layers make a more serviceable covering for these large electrodes than a single layer, and it need not be feared that additional layers will add much to the resistance of the circuit, as the experiments described below show that wet cotton deprived of its natural oil is a much better conductor of electricity than wet sponge.

Dr. Angell, of Rochester, New York, has suggested to me that cotton may be kept in place on the ordinary sized disks by means of small stationer's rubber bands to clasp it about the shank, permitting a ready renewal. I have, however, found the *original* method by twisting about the shank, as shown in the accompanying illustrations, to be both neater and more convenient. Fig. 1 illustrates the placing of a pinch on the face of a disk, and pressing the edges over. Fig. 2, the twisting motion that fixes the edges about the shank.

FIG. 1.

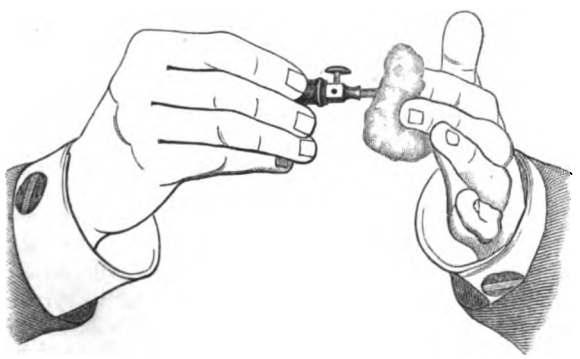
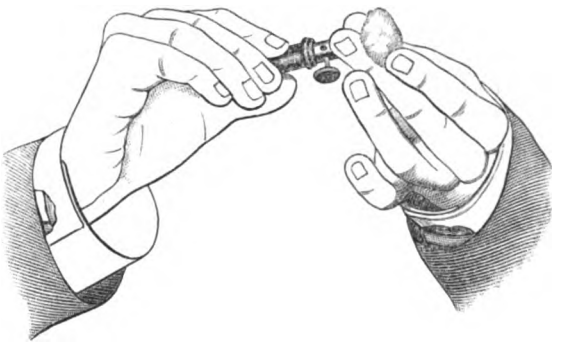


FIG. 2.



The resistance offered by pairs of sponge-covered and cotton-covered electrodes may be readily compared by anyone possessing a milliampèremeter simply, without the necessity of resorting to elaborate measurements. The accompanying table exhibits the results of such an experiment with two pairs of medium sized electrodes, covered respectively with sponge and cotton, and equally moistened with simple water. The circuit was completed by bringing the electrodes directly together:

Battery of 20 volts; circuit completed by:	Number of resultant milliampères in the circuit.		
	Electrodes lightly touched together.	Electrodes pressed together.	Electrodes heavily pressed together.
Electrodes covered with sponge	5	15	22
Electrodes covered with absorbent cotton . .	24	28	31

The results depicted show that 31 milliampères were obtained from 20 cells when the cotton poles were heavily pressed together, while but 22 were obtained from the same number of cells when the sponges were used. The table also shows the great variation in the current under ordinary accidental variations of apposition when the sponges were in circuit—from a minimum of 5, to a maximum of 22 milliampères: a variation quite undesirable in a number of delicate applications of this current for diagnostic purposes, and in the treatment of cranial affections.

1502 ARCH ST., PHILADELPHIA.

MEDICAL PROGRESS.

EPILEPSY AS A SEQUENCE OF DISEASED TEETH.—The literature of epilepsy contains some fifteen cases in which this disease was cured by the extraction of one or more teeth, but in none of these cases is it proven that the disease of the teeth was the direct

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cause of the attacks. The following case, recorded by SCHWARTZKOPFF (*Deutsche Monatsschr. f. Zahnheilk.*, Sept. 1885, Heft 3), is apparently conclusive in this regard:

The patient, a man, aged twenty-seven, suffered severe pain in the right upper middle incisor, which was filled soon after. Thereupon appeared a swelling on the adjacent portion of the hard palate, which increased in size until it reached the soft palate, in which, soon after, a fistulous opening appeared. Every morning the patient expelled, by pressure with his finger, the purulent contents of the swelling, and was thereafter comparatively free from pain. The tooth, however, was loose, and somewhat painful when in use. Ten days after it was filled an epileptic attack occurred, which was repeated after several months. Gradually the attacks became more frequent, and in eighteen months after the first attack they occurred several times a week. The fistula remained during this entire period, and the patient used, under medical advice, bromides, atropia, and other remedies, without result. The tooth was then extracted, whereupon the fistula healed, and the epileptic attacks have not returned, although the extraction occurred four years ago.—*Centralb. f. Chirurgie*, Nov. 21, 1885.

TRASTOUR'S MIXTURE FOR BRONCHIAL CATARRH.—

Calcium iodide	1 part.
Lime-water	20 parts.
Distilled water	80 "

A soupspoonful before each of the two chief meals in a glass of diluted wine, or in milk. The use of the mixture must be continued for some time, and should be combined with laxatives, thoracic counter-irritation, and such other remedial agents as may be indicated.—*L'Union Médicale*, Nov. 19, 1885.

DISINFECTION OF APARTMENTS BY VOLATILIZED CORROSIVE SUBLIMATE.—DELBASTAILLE, in *The Annales de la Société Médico-chirurgicale de Liège*, highly recommends the method of disinfection employed by Koning, of Göttingen. This procedure consists simply in closing the doors and windows of the apartment, and then throwing about two ounces of bichloride of mercury upon a pan of live coals. The room is to be quitted immediately, and should remain filled with the vapors of the sublimate for three or four hours. It is then aired for several hours, the ordinary precaution being taken to prevent the entrance of the corrosive vapor into the respiratory passages. In order to prevent injury from such portion of the sublimate as may still cling to the room, the subsequent volatilization of sulphur in the apartment, in the ordinary manner, is desirable.—*L'Abeille Médicale*, Nov. 30, 1885.

CHRONIC CAFFEINISM.—In a paper recently read before the *Société Médicale de Reims*, GUELLIOT has analyzed the effects of the habitual excessive use of coffee, and pointed out certain resemblances and differences between the results of this and those of chronic alcoholic intoxication.

Passing over the familiar temporary erethism produced by coffee in those not accustomed to its use, we find that this beverage, taken in large and repeated doses, induces:

1. In men, sexual apathy, and even impotence.

2. In women, leucorrhœa. Little effect is exerted upon menstruation, and none upon either fecundity or the course of pregnancy.

The victim of caffeinism never presents the hebetude of ethylism; the face is pale and the eyes brilliant. Emaciation, or a tendency thereto, is marked, for there is no fat caffeinism. The various discomforts experienced in the morning by the typical alcoholic are here absent. The symmetrical anæsthesia of the extremities so characteristic of chronic alcoholism is rarely observed; on the contrary, the troubles of sensation take the form of hyperæsthesias and neuralgias.—*Revue de Thérapeutique*, Dec. 1, 1885.

PUPILLARY SYMPTOMS IN CHOLERA.—COSTE, of Marseilles, has made the following interesting observations in the course of an extended study of cholera during the recent epidemic in his city:

1. During the algid stage, even with cyanosis, if the pupils remain mobile, the stage in question will be successfully passed, and in the majority of such cases recover.

2. If, on the contrary, in the algid stage of cholera, the pupils remain contracted and motionless, or dilated and motionless, the patient invariably succumbs during the period of algidity.—*Archives Générales de Méd.*, Dec. 1885.

PTOMAINES OF CHOLERA.—At the session of the Académie de Médecine, on November 3d, was presented an account of the researches of MM. NICATI and RIETSCH, which may be thus summarized:

1. The injection into the veins of a healthy animal of an extremely minute quantity of a pure culture of the comma-bacillus will produce the characteristic choleraic symptoms, and ultimately death.

2. From such pure cultures may be extracted, by the method of Stas, a fluid ptomaine capable of producing the same effects.

3. From the liver and blood of cholera patients dying in the algid stage they have extracted a similar ptomaine, producing precisely the same effects on the lower animals.—*Archives Générales de Médecine*, Dec. 1885.

METHOD OF ADMINISTRATION OF HYPNONE.—VIGIER, to whom Dujardin-Beaumetz presented a large quantity of hypnone for experiment, makes the following report:

Hypnone is very sparingly soluble in water, and but slightly soluble in glycerine. Its solubility in alcohol permits the establishment of the following formula:

Hypnone	gtt. j.
Alcohol fortior	gtt. xvj.
Syrup of wild cherry . . .	gtt. xvj.
Syrup of orangeflowers . . .	f℥j.

Add the hypnone to the alcohol, then add the syrups, mix, and preserve in a stoppered bottle.

The amount of hypnone necessary to induce sleep varies from four to ten drops, taken at one dose. Fractional doses are not efficient.—*Gaz. Hebd. de Méd. et de Chirurgie*, Nov. 27, 1885.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL

OF MEDICAL SCIENCE.

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SATURDAY, DECEMBER 26, 1885.

THE TREATMENT OF INTRACRANIAL HEMORRHAGE.

DR. C. B. WETHERLE, of St. Paul, Minnesota, reports in the *Northwestern Lancet* for November 15, 1885, a fatal case of injury to the head, in which he failed to secure the concurrence of the consultants in his wish to supplement one opening with the trephine by others, when the former proved insufficient for the removal of a clot and the arrest of hemorrhage.

The main points in the case were these: A man fell from a truck, and struck his head against the wheel. He rose and walked a short distance, and then became unconscious. His breathing soon became stertorous, with a "suggestion of Cheyne-Stokes respiration." His pupils were moderately dilated; and, on being moved, he had some slight convulsive twitchings. On examining the head, a small opening communicating with a fissure of one parietal bone was found. The pulse was 80, full, hard, and regular. In two hours the temperature was noted to be 104° in the mouth. The small wound was enlarged, and a single opening made with a trephine. About two drachms of coagulated blood were removed, and a trickling out of bright fluid blood followed. The pulse now increased in rapidity to 120 beats in the minute, and "the Cheyne-Stokes respiration became more marked." For fear of causing a fatal hemorrhage, the surgeons consulting with Dr. Wetherle refused to agree to another application of the trephine. The patient died twenty-two hours after the accident, and at the autopsy a clot about six inches long was found between the dura mater and the cranium, and one the size of an almond on the surface of the pia mater. The former was due to hemorrhage from a branch of the middle meningeal artery. As might be expected, the reporter refers to the recent paper of Dr. John B. Roberts, advocating more active interference in cases of injury of the head, and regrets that his judgment was overruled by his colleagues.

We call attention to this case because the study of the surgery of the skull is now at what will probably prove to be an important epoch in its history. In regard to the phase of it suggested by the experience of Dr. Wetherle we can hardly do better than to refer our readers to the admirable and comprehensive paper of Wiesmann, of Zurich: "Ueber die modernen Indicationen zur Trepanation mit besonderer Berücksschtigung der Blutungen aus der Arteria meningea media," published in the *Deutsche Zeitschrift f. Chirurgie*, Bd. xxi., xxii., 1885. It will be observed from the title of this paper that it deals especially with the matter of bleeding from wounds of the meningeal artery. This is studied exhaustively from a mass of statistics bearing upon its causes, symptoms, diagnosis, prognosis, and treatment. In regard to some of the points dwelt upon by Wiesmann we think it worth while to say a few words. In the first place, as to the causes of bleeding from the meningeal arteries. To the common traumatisms, in which there is an obvious lesion of the skull, must be added those injuries which, as we have recently seen in speaking of fractures by so-called counterstroke, alter the shape of the skull without breaking it. The possibility of the rupture of bloodvessels within the skull in this way has been denied, and that most recently by Marchant in 1881. But it was recognized long ago, allusion to it being made in some of the oldest writings; and new cases in which it has occurred will be likely to be discovered, when the possibility of its occurrence is recognized and search is made for it.

Passing by a number of interesting points discussed by Wiesmann, we desire to call attention to some in regard to the diagnosis of bleeding from the middle meningeal artery. Of course when this is associated with a fracture, in the course of the artery, and accompanied by the symptoms of pressure, the diagnosis is easy enough. But the fact must not be overlooked that the signs which confirm the suspicion of the formation of a clot, in the case just mentioned, may suffice to indicate its formation almost as clearly when there is no opening in the skull at all. The most important of these signs are those of which we have recently spoken, in discussing compression of the brain in THE MEDICAL NEWS, November 14, 1885. Thus we have the evidences first of irritation, and then of paralysis of the centres of the vagus and vasomotor nerves in the brain. The pulse under the influence of a comparatively rapid increase of intracranial pressure becomes slow, hard, and tense. The respiration becomes slow, labored, and stertorous; and—a point

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to which we have not yet adverted—the temperature sometimes undergoes a notable rise, due to irritation of the heat centre. In this connection we would refer to an interesting paper by Dr. W. Hale White, on "The Theory of a Heat Centre from a Clinical Point of View," which appears in *Guy's Hospital Reports* for 1884.

One of the most important points in the diagnosis of hemorrhage within the skull is the brief period of freedom from manifestations which indicate severe injury of the brain. As in the case of Dr. Wetherle, it is often recorded that a patient, after a fall or a blow, has stood erect, or walked a certain distance, and seemed, indeed, to have received no great hurt. In such cases the symptoms of danger come on a little later, and this very delay points almost infallibly to an intracranial hemorrhage. In Dr. Wetherle's case, it will be observed, not one of the elements of diagnosis which we have mentioned was wanting.

In regard to the treatment of injuries of this sort, it is interesting to note that Wiesmann found that, out of 147 cases treated expectantly, 131 died; that is, about nine-tenths. Of 110 cases treated actively, only 36 died, or about one-third. Further, he shows that in the majority of the cases which ended in death the extravasation was not reached, and of course it was not removed. These figures certainly appear to justify his conclusion that operative interference, either by removal of fragments or resection of the skull, is to be carried out whenever there is a certainty, or a very strong suspicion, that there has been a rupture of, and hemorrhage from, the middle meningeal artery. He does not hesitate to recommend an operation even when a blow has been inflicted upon one side of the head and the symptoms point to a rupture of the artery on the other. The operative procedure which he advises includes removal of any clot which has formed, controlling the hemorrhage, washing out the cavity, introducing a suitable drainage tube, and closing the wound with perfect antisepsis. The best way to control the hemorrhage is by means of a ligature, or by acupressure, or by an aseptic tampon of iodoform gauze.

We do not wish, any more than does Wiesmann, to occupy the position of one who would advise going in search of a suspected bleeding point with the trephine; but in view of the cases he has adduced, and of those cited in the remarkable paper of Quesnay, published more than a hundred years ago, on "Multiplicité de trépans," in the *Mém. de l'Académie royale de Chirurgie*, tome i., we cannot hesitate to recommend the question as to the propriety of bolder interference in cases of known or suspected hemorrhage from the middle meningeal artery to the renewed consideration of surgeons.

THE BACILLUS OF SYPHILIS.

ALTHOUGH scarcely a year has passed since the announcement, by Lustgarten, of Vienna, of a microorganism in connection with syphilitic products, there are already numerous communications on the subject, and the claim of this bacillus to be admitted into the ranks of the specific microbes has been vigorously contested. Lustgarten attempted to show the presence in syphilitic processes at all stages of a bacillus, which presented certain peculiarities in form and color relations, but of which, however, cultures could not be obtained.

The observations of DOUTRELEPONT and SCHÜTZ in Germany, and of BABIES, GIACOMI, and LELOIR in France, confirm the statement of Lustgarten. ALVAREZ and TAVET, pupils of Cornil, state in the October number of the *Archives de Physiologie*, that they have failed to find the bacilli in sections of syphilitic growths, but have been able to demonstrate them in the secretions of chancre, mucous patches and ulcers, occasionally in other pathological secretions, as soft chancres, and herpes preputialis, and in the normal secretions of the genital organs, the smegma of the glans penis, and in the secretion of the labial folds. Morphologically, as well as in color relations, the bacilli of these three categories, syphilitic, non-syphilitic, and normal genital secretions, are identical. KLEMPERER, of Leyden's clinic, has published in the *Deutsche med. Wochenschrift*, No. 47, conclusions similar to the French observers, confirming their statements of the identity of the smegma bacillus with the form described by Lustgarten. In the same journal, No. 48, MATTERSTOCK, on the other hand, while admitting the similarity of the smegma bacilli with some of those in syphilitic secretions, holds that there are other forms differing in color reactions, which further investigations may show to be specific. Altogether, these observations seem to dispose for the present of Lustgarten's bacillus.

But with the annihilation of one microbe another is brought forward to take its place. In No 48 of the *Deutsche med. Wochenschrift* is a preliminary communication on this subject by DISSE and TAGUCHI, of the Medical Institution of Tokio, Japan, which, on paper, rivals as a comprehensive demonstration Koch's famous essays on tubercle. They claim to have discovered in the blood and lesions of syphilitic patients a bacillus with spores, which they have been able to cultivate in series and inoculate successfully in dogs, sheep, rabbits, and mice, with the production of a local lesion with induration and subsequent systemic infection. From the blood and tissues of the animal thus experimented upon, cultures could be obtained, and further inoculations were successful. The bacilli were demonstrated in the embryos of a pregnant rabbit two months after infection, and

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in severe cases gummata were found in the placenta and liver, and in other syphilitic bone lesions. The possibility of the process being tuberculous was excluded.

LANOLIN: A NEW BASIS FOR OINTMENTS.

IN the *Berliner klin. Wochenschrift*, No. 47, 1885, Liebreich describes, under the term "Lanolin," a new basis for salves, for which are claimed certain advantages over the glycerine fats and mineral oils, such as vaseline. In the various keratin tissues—skin, hair, hoof, and feathers—the fatty acids are united with cholesterin, forming a peculiar fat, to which the name lanolin is given, as it can be most readily prepared from wool. One of its most remarkable properties is the power of taking up an equal bulk of water, but the difficulty with which it decomposes, and the rapidity with which it is absorbed, are the qualities which make it especially valuable in comparison with the neutral glycerine fats and vaseline. The readiness with which lanolin is absorbed by the skin is explained by the fact that it is the natural fat of epidermic tissues. Rubbing the hands with a 5 per cent. carbolic acid ointment made with it produces a sensation of numbness, without any irritation, in from one to two minutes, and a sublimate salve, 1:1000, will give the characteristic metallic taste a few minutes after inunction. The addition of 5 or 10 per cent. of fat or glycerine to lanolin is recommended as giving a better consistence to the ointment.

SOCIETY PROCEEDINGS.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, November 24, 1885.

THE PRESIDENT, CHARLES MCBURNEY, M.D., IN THE CHAIR.

DR. R. J. HALL presented the following report:

THE BACILLUS OF SYPHILIS.

In May, 1885, Dr. Lustgarten published his pamphlet stating that by a new method, devised by him, of staining and bleaching syphilitic tissue, he had found in sections of the specimens examined, sixteen in all, a distinct bacillus; these bacilli were found in small numbers. In August, 1885, in the *Fortschritte der Medicin*, Bd. 4, No. 16, there was published an article describing Giacomi's method of staining the same bacillus.

Both methods have been used by Mr. Freeman, under the guidance and with the supervision of Dr. R. J. Hall. The Lustgarten method, though more troublesome, was the more satisfactory. The statistics given below were obtained from specimens stained by the Lustgarten method. 7 specimens of syphilitic tissue were examined; 5 primary, all typical hard chancres; 2 secondary syphilitic papules.

Specimen No. 1: No history; sections received already cut; typical hard chancre from prepuce. Section No. 1: Found 1 bacillus in a cell; found 2 bacilli in a cell; found 3 bacilli in a cell.

Specimen No. 2: No history; typical hard chancre from prepuce. Section No. 1: Found 1 bacillus in a cell; found 1 bacillus in a cell; found 3 bacilli in a cell. Section No. 2: found 2 bacilli in a cell; found 18 bacilli in a cell. "A flat cell in a condition of granular degeneration, no nuclei being visible. Counted in it 18 bacilli exactly corresponding to Lustgarten's description, and one or two dots which might be portions of bacilli partially concealed through lying obliquely." Section 3: negative.

Specimen No. 3: Typical hard chancre; August 11, 1885; William Muller, age sixteen. Six weeks ago sore appeared at peno-scrotal junction with a simple balanitis; connection one or two weeks previous; three weeks ago inguinal glands enlarged, and eruption on legs. Examination: *Typical hard chancre;* primary roseola on abdomen; syphilitic buboes; chancre excised. Microscopic examination: Section No. 1: Negative. Section No. 2: Found 2 bacilli in a cell; found 1 bacillus in a cell. Section No. 3: Negative.

Specimen No. 4: Syphilitic papule; August 11, 1885; Rudolph Bogli, aged nineteen. Five months ago extensive chancroid with phimosis, was circumcised; now lymphatics swollen; 2 characteristic syphilitic ulcers on right forearm; several indurated papules on scrotum; *large indurated papule*, ¾ inch in diameter, greatly resembling a primary chancre, on line of circumcision; no other secondary symptoms; induration on penis excised. Microscopic examination: Section No. 1: 2 bacilli in a cell. Section No. 2: None. Section No. 3: None.

Specimen No. 5: Typical hard chancre; Richard Kane, aged thirty-six; *typical hard chancre;* first noticed sore eight days ago; had connection four weeks previously; no eruption; chancre excised. Microscopic examination: Section No. 1: Found none. Section 2: Found 1 bacillus in a cell; found 2 bacilli in a cell; found 1 bacillus in a cell; found 1 bacillus in a cell. Section 3: found 1 bacillus in a cell.

Specimen No. 6: Syphilitic papule; Herbert Smith, aged twenty-nine; gonorrhœa eighteen months ago; last connection two months ago; two weeks ago noticed *indurated sore on prepuce* and enlarged glands in groin; a few days ago roseola; all these symptoms present; induration excised. Microscopical examination: Section No. 1; found 1 bacillus in a cell; found 1 bacillus in a cell; found 1 bacillus in a cell. Section No. 2: found none. Section No. 3: found none. Section No. 3: found 1 bacillus in a cell.

Specimen No. 7: Syphilitic hard chancre; September 21, 1885; Joseph Grassley, aged nineteen; ten days ago connection; four days ago *sore on prepuce;* size, split pea; hard base covered with yellowish material; excised. Microscopical examination: Section No. 1: found 3 bacilli in a cell; found 2 bacilli in a cell. Section No. 2: found none. Section No. 3: found 1 bacillus in a cell; found 1 bacillus in a cell.

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Stated Meeting, December 8, 1885.

DR. H. B. SANDS read a paper on

RUPTURE OF THE LIGAMENTUM PATELLÆ, AND ITS TREATMENT BY OPERATION.

(See page 701.)

DR. R. F. WEIR exhibited the patient treated in St. Luke's Hospital for rupture of the ligamentum patellæ, who was referred to in Dr. Sands's paper. The accident occurred in 1869. The patient, a man, æt. 47, while crossing the street, slipped and fell, but did not strike the knee. The rupture resulted apparently from his attempts to save himself from falling. He was taken immediately to the hospital. The patient was recently looked up, and when asked, in the absence of a written history, upon which side the accident occurred, said the left, but he had since thought over the matter a good deal and was unable to say positively whether the right or the left leg was affected. The result is a remarkably good one, both as to function and physical appearances. The patient can use the one limb as well as the other. Dr. Weir was unable to detect any difference in the appearance or length of the two patellar ligaments. The man was treated in the hospital about a month by a plaster-of-Paris splint. He then went home, and by incautious walking got up a synovitis, and was confined to his house for another month.

Dr. Weir said four cases of rupture of the ligamentum patellæ had come under his notice, the first being during his interne service in the New York Hospital, and was probably the one reported by Dr. Sands as occurring in that hospital under the care of Dr. Markoe. The second was the one presented to-night. The third occurred in a gentleman from the West, treated at the Sturtevant House. The result is uncertain as to function, as he was treated only three or four weeks, when he went to his home, but union had satisfactorily taken place.

The fourth case, which, however, did not properly belong to the class referred to by Dr. Sands, occurred in a case of stiffness of the knee-joint supposed to be due to fibrous anchylosis of the patella, and in which an attempt was made to practise *brisement forcé* with the result, not of fracturing the patella, but of rupturing the ligamentum patellæ. It healed promptly.

Dr. Weir further reported that within the past two weeks he had been consulted by Dr. Loring, of Valparaiso, Indiana, about a case of a woman sixty-five years of age, who fell and sustained a rupture of the ligamentum patellæ on the left side, from muscular violence. The gap was now the breadth of a hand, and the limb was incapacitated except with the use of a posterior splint which enabled her to get about by the aid of crutches. The case was additionally interesting as having occurred in a female.

Dr. Weir thought it is not generally enough recognized that the ligamentous band uniting the fragments of a fractured patella is frequently stronger than the bone itself.

Dr. Weir remarked that it had been suggested, as a means to overcome the distance between the fragments of a fractured patella, to fracture the thigh bone. May this not be resorted to as a last measure in certain instances, where an operation is required, when the scoring of the quadriceps muscle will not permit the approximation of bony fragments in fracture of the patella, or of the tendon ends in rupture of the ligamentum patellæ?

Dr. L. A. STIMSON said that the creation of a gap in cases of rupture of a tendon at its lower end is not produced solely by contraction of the muscle, as of the quadriceps femoris, but is produced in part, as in Dr. Sands's case by retraction of the ligament itself. This has been observed constantly after fracture of the patella, and it is one of the reasons why it is so difficult to obtain union without a gap after that accident. Fracture of the thigh will not overcome a gap due to that cause.

THE PRESIDENT suggested the substitution for fracture of the thigh bone in certain cases for overcoming the gap, division of the patella, trusting to the well-known facility of formation of a ligamentous band to unite the divided patella. This procedure may be resorted to in some cases in which the separation is great and cannot be overcome by partial division of the muscle.

POTT'S FRACTURE AT THE ANKLE.

DR. L. A. STIMSON presented a specimen illustrating a common fracture, but one in which we seldom have an opportunity to obtain the injured parts for study. The patient was sixty years of age, and sustained Pott's fracture at the ankle from a fall apparently caused by a cerebral lesion. He died three days after admission to the hospital. The characteristic deformity of the fracture was present, and crepitus was much more marked than usual. At the autopsy the fracture was found to be very oblique, beginning in front an inch and a half above the tip of the malleolus and extending upward and backward more than two inches. The internal lateral and lower tibio-fibular ligaments were ruptured, and the outer malleolus was displaced from a half to three-quarters of an inch outward from the tibia. There was no fracture of any other part.

THE AMERICAN PUBLIC HEALTH ASSOCIATION.

Thirteenth Annual Meeting, held at Washington, D. C., December 8, 9, 10, and 11, 1885.

(Specially reported for THE MEDICAL NEWS.)

WEDNESDAY, DECEMBER 9TH.—SECOND DAY.
MORNING SESSION.

DR. P. H. BRYCE, Secretary of the Provincial Board of Health, Toronto, Canada, then read a paper on

SMALLPOX IN CANADA, AND THE METHODS OF DEALING WITH IT IN THE PROVINCES.

He stated that he felt like a lawyer before a criminal court, pleading for a client who had boldly declared himself "not guilty" of an epidemic of smallpox. He then proceeded to relate the particulars of the outbreak of the present year, and stated that it was not until a prominent politician had died of the disease that the entire outside world awoke to the situation. The number of deaths was about 3100. Unfortunately, the epidemic was not confined to Montreal alone. Among the French the system of sanitation was unable to grapple with the disease. Knowing this, the health authorities of Mon-

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treal provided the local boards of health with instructions, and did everything in their power to ward off the danger. He entered into a full description of the means taken to prevent the spread of the disease. All goods, and all people passing in and out were strictly examined, the railway companies assisting in the work of inspection. Every car was examined, and all the railway officials were vaccinated. A list of streets and numbers in Montreal were furnished, and passengers were questioned as to their residence, and if it was found that they lived in an infected neighborhood, they were detained for a time, and their baggage fumigated. Similar precautions were taken in the Province of Quebec. He thought it very creditable to Ontario that no case of disease, so far as known, had passed through their internal quarantine to the neighboring States, and he thought the quarantine at Suspension Bridge should be removed.

DR. HINGSTON, president of the Central Board of the Province of Quebec, said that he could not help thinking that Dr. Bryce's paper was very strong from an Ontarian point of view. Montreal has been afflicted as perhaps no other city on this side of the Atlantic. But, on the other hand, he wished to say that never did city make such tremendous efforts to get rid of an epidemic as did Montreal. Smallpox did not originate in Montreal. It did not drop as the dew from heaven upon the earth beneath, it came to us from outside our province. I shall not say whence it came. It was traced from one place to another, then to some State in the Union which has no State Board of Health. Let us leave it there. If there are any states in the Union which have not State Boards of Health, it will be a good excuse for their creation. There is no denying that when it did come, however, a section of the city, the most thickly settled quarter, was unprepared to receive it; that is to say, it was prepared to receive it well and to house it. The soil was well prepared to receive it. In Montreal for several years past, pamphlet after pamphlet has been printed and distributed, disseminating anti-vaccination views. Unfortunately, too, the beautiful French language has been the medium of conveying these views.

Now, it must not be imagined that the population of Canada is not a vaccinated population, but in consequence of the dissemination of these views in regard to the uselessness of vaccination, the population of Lower Canada, at least of Montreal, is not a vaccinated population. The writing against vaccination began twelve or fifteen years ago in the French language, and great mischief has been done. Notwithstanding the severity of the epidemic to which we have been exposed, these views are still being disseminated, but the public press has been ashamed to yield its columns to that purpose. So, after the epidemic began, we had to begin by educating that section of the people. What added to the difficulty was this: A certain portion of the population had to be approached in a different way from other sections. A prejudice existed against civic vaccination. When the erysipelas developed after vaccination, or something of the kind happened, the anti-vaccinationists would ascribe it to the use of impure vaccine virus, and thus a certain class of people would become more and more opposed to being vaccinated. That, however, has happily altogether disappeared, and we are indebted in a large measure to the commercial people of our city for this. They made it a rule that no one should be employed in factory, store, or warehouse without a certificate of vaccination, and also a certificate showing freedom from infection in their homes and houses. This regulation was adopted by both the Ontario and American authorities; persons who were imbued with anti-vaccination views found when they crossed the frontiers to the United States, they were met by a gentleman who politely but firmly told them, "You cannot enter our territory until you show marks of recent vaccination." In that way our hands were strengthened. Indeed, we have accomplished more in a few months than otherwise we could have accomplished in as many years.

Ontario was comparatively free from infection and they were as anxious to preserve their province as the people of the United States were to protect theirs. The City of Montreal accomplished more, I think, in regard to vaccination than has been accomplished by any city of the same size in the same period of time; and this was accomplished by writing and disseminating pamphlets, by using the public press, and by organizing vaccination bureaus.

Montreal is peculiarly situated. It is a city of 180,000 inhabitants. But it has a large outlying population which would not come into line. The Government of Quebec, finding that the City of Montreal could not deal with this outlying population, made it into a distinct municipality, with a board of health to which arbitrary powers were given. Montreal is situated 180 miles from the seat of Government, and it had to create legislation. But the rules and regulations were sent by special messengers, and within forty-eight hours the regulations became law. If there was any want of diligence, it was not with the Government, but with the authorities. Vaccination has been accomplished on a very large scale. Isolation was found difficult.

What was the position of Montreal on the 28th of February last? There was not a place prepared for isolation. The city had been free from smallpox for several years: it had not taken precautions to have a building ready. Its population was not vaccinated. Thanks to the ideas which prevailed, thanks also to the opposition created in the minds of many, by writers in the French language, at the beginning of that epidemic, there was no building into which a person suffering from smallpox could be placed. A little censure has been passed upon us for this reason; and it was said that the patient who first came to Montreal was admitted to the general hospital. The statement is true and untrue. He was admitted to the largest building in the city, but with a wing more completely isolated than any other building in Montreal; and it is yet to be shown that a single case occurred in his vicinity. It was found to be almost impossible to get persons to leave their houses when afflicted with the smallpox. In some cases it was necessary for the Mayor, followed by the police, to go and by force remove them. Indeed, in the minds of some lawyers and some judges of our courts, it was conceded that the law had been exceeded by the authorities; but the people were prepared to go beyond the law, or even break the law, to carry out sanitary regulations.

First of all, a building was procured, but was soon crowded. Influential persons had to go from house to house and coax and threaten, and induce cases to enter

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it. What did Montreal do? It took the largest, the handsomest, the best situated building in the town, that for many years has served the purpose of an exhibition building, and there complete isolation was obtained.

Then, again, objection was made to the placards. Sometimes persons were maltreated who were engaged in putting up these placards, and at first no sooner were the placards put up than somebody tore them down. But by perseverance we finally succeeded, and now when a placard goes up it stays until it is taken down by the authorities. The same way with disinfection. But we finally succeeded in this also, and it has been carried on in accordance with the most recent views on sanitary science.

Another difficulty was that smallpox existed amongst a large section of the poorer population, and they had to be supported. A thoughtless man, and one who looks only from the sanitary point of view, is apt to put a placard on the door, and leave the place. Yet if this is done, the baker and other tradesmen will be afraid to go to that house, for fear their customers will think them contaminated. So we had to go to work and support these families, and hundreds and thousands were supported by the city. It was done cheerfully, not only by the employés, but by a large number of citizens, able and intelligent citizens, who coöperated with the city.

The provincial board of health had also its work. It had, first of all, to formulate rules and regulations concerning every question. After they were completed, it was found by a lawyer that certain links were wanting, and they had to be supplied in the French and English languages. Rules had to be laid down for isolation and vaccination. The rules for vaccination cost him seven or eight nights of intense work. They had to enlist the clergy and physicians in the cause. In that way they got, in a short time, boards of health over almost the entire Province of Quebec.

We were assisted by the railroads. They coöperated with the provincial board, and sometimes at great sacrifices. When we pointed out that at such a place on the railroad line there was disease, and we could get no assistance whatever, the order went forth to pass that place. In that way we accomplished much. Generally before twenty-four hours the municipality was upon its knees, coming to us and asking for relief. Without the railroads we never could have done what we did. They may have exceeded their authority a little in doing this, but it was no time to strain at a gnat. They are public carriers, and by their charter they are obliged to stop at certain places, and an action for damages might arise if they failed to do so, but these railroads are prepared, and I hope every railroad will be prepared, to act in the same manner.

Assistance was obtained from the Minister of Education. Instructions were sent to the schools and colleges to receive no pupils without a certificate of freedom from infection in their houses, and freedom from disease in their persons. The schools and colleges and seminaries of learning coöperated with the board very cheerfully. There were but two institutions that would not yield, but they were very glad to yield before many days passed, because we held them up, or threatened to hold them up, to public scorn and contempt.

The provisional government of the province of Quebec also coöperated with the board.

Shortly after the Board was formed, a law was passed requiring compulsory vaccination, and boards of health were instructed to vaccinate. But, compulsory vaccination, to be successful, must depend on a law of public registration of births. We have no law for the compulsory registration of births as in European countries. In Germany they have a law of compulsory vaccination, but they have also a law of compulsory registration of births. When a child is born, its birth is registered and a certificate of birth is procured. What we propose doing at the next session of the legislature is to obtain a law of compulsory registration of births, and compulsory vaccination will follow as a matter of course. As it is now, there is no machinery by which it can be done. You go to a man's door and you ask if there is a child under a certain age. He may say yes or no, or he may tell you to go about your business. But with compulsory registration, an officer can sit in his office and make out a list of so many people of such a street and number and name not yet vaccinated. After notification they must have a certificate of exemption within five or ten days, or else we will step in and know the reason why.

Dr. Hingston then alluded to the death-rate of Montreal. It has been stated by Dr. Bryce to be about 3000 persons in a population of 180,000. That is an enormous mortality. The death-rate, however, according to months, may be of interest. The death-rate in April was 6, in May 10, in June 13, in July 40, in August 239, in September 660, in October 1391, still on the increasing scale. It suddenly dropped then to one-half. It dropped from 1391 to 633, and from 633 again to 300.

Now this is an enormous death-rate. The death-rate is large, but he was happy to say the birth-rate is simply enormous. No country in the world, no country anywhere, can give such a birth-rate as the Province of Canada.

DR. STEUART called attention to one thing that had not been touched upon. That is the danger that occurs from public funerals. If the health officer and the authorities of every city where smallpox occurs would prevent public burials of smallpox patients, the danger would be very much lessened. In an epidemic that occurred in Baltimore two or three years ago, the great start the disease obtained was from a public funeral, which took place in a church. Five or six hundred people were present, and in that locality within two or three weeks the disease was dotted around in four or five houses, and hundreds of cases came from that one case. The authorities should take possession of a house and watch every case as soon as it is reported, and have reports made daily to the health authorities, and, when death occurs, destroy everything that has been in contact with the patient, and disinfect the house properly, and more especially the body.

DR. C. W. CHANCELLOR, Secretary of the Maryland State Board of Health, then read a paper entitled

IMPURE AIR AND UNHEALTHY OCCUPATIONS AS PREDISPOSING CAUSES OF PULMONARY CONSUMPTION.

He said that in England one-fifth of all the deaths are from pulmonary consumption; in France one-sixth, and in Germany and Austria about one-seventh. In the United States, according to the Census of 1880, one-eighth of the deaths were from consumption. Pure air

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is as essential to health as pure food and drink. When contaminated from any cause, it acts as a slow poison, and gradually undermines the constitution. Too little attention is paid to the proper ventilation of living apartments. The sallow complexions of persons living in apartments not properly ventilated plainly indicate the injurious effects produced by the poisonous air they breathe, and although its pernicious effects may not be sensibly felt, it gradually preys upon their constitutions, and is often the cause of incurable consumption, which is frequently imputed to other causes. It is true that some occupations are more unhealthy than others. Inhabitants of cities are undoubtedly less hardy and more subject to pulmonary diseases than those of the country. City people are generally pale, and their muscular system is poorly developed. Want of a free circulation of pure, uncontaminated air is the most powerful cause of this. In addition, in cities there is more to excite the passions. Overindulgence in eating and drinking is more common, while many of the occupations are sedentary and more unhealthy than those in the country. Salesmen are liable to disease because they are constantly in a superheated and more or less impure atmosphere, and often exposed to sudden changes of temperature. Artisans and laborers are often compelled to work in rooms badly located, badly ventilated, and abounding in unhealthy dust. Under such circumstances the most substantial nourishment, the most temperate habits, cannot prevent them from becoming blanched and weakened by disease. A number of statistics showing the relative length of life of different workers was then given. He said the problem was, how to environ each worker in a pure atmosphere. The solution of the problem could be easily suggested by the sanitary engineer, but its execution was a matter for the several State Legislatures to control. He thought it very desirable that consumption hospitals should be established in every city.

EVENING SESSION.

DR. E. M. HARTWELL, of Johns Hopkins University, read a paper upon the

GERMAN SYSTEM OF PHYSICAL EDUCATION,

in which he described the origin of gymnastics in Germany, beginning in the year 1700. In the city of Berlin every child at school is taught the physical exercises two hours in each week. Every one in Germany has to undergo such training. The men are so trained for the army; and upon entering it they have to undergo a further severe course of training, the results of which are apparent in the physical endurance and courage of the soldiers. A German soldier, with his musket and accoutrements, can scale a twenty-foot brick wall, or jump an iron-spiked fence, without danger of catching his clothing in the spikes. In the German schools gymnastics are compulsory, and of the pupils less than 10 per cent. are exempt, and then only upon the certificate of a physician. There are in Berlin ninety-eight gymnasiums; and in 1880 and 1881, of the $1,760,000 appropriated by the city for educational purposes, one-thirtieth of that amount was expended for gymnastics. In 1885 there was appropriated, for the Royal Normal School of Gymnastics, something over $21,000, and teachers from all parts of the empire go there to learn, so that they may go back to teach their pupils. Officers of the army become pupils, so that they may teach the soldiers. The speaker thought we could not do better than to introduce the system in this country; of course, adapting it to our institutions, thus enabling our youth to bear the strain of study.

DR. O. W. WIGHT, Health Officer, of Detroit, Mich., then read a paper on

EXPERIENCES IN DISINFECTING SEWERS.

He described the bad condition of the sewerage of Detroit, the lack of system in its construction, stating that very frequently large sewers are so connected as to empty into smaller ones, and that outlets are often higher than inlets. He gave a humorous account of the difficulties encountered in his crusade against sewer gas, and the ridicule and opposition which greeted him when he proposed to disinfect the sewers. He stated that some time previous to his efforts in that direction, two medical men of the city had descended into one of the sewer manholes, and remained there, to use their own words, "twenty-five consecutive minutes," and upon ascending they reported that the air of the sewer was "chemically pure!" In spite of opposition, however, he entered upon the work of disinfection. First, he used 75,000 pounds of copperas, and the citizens joined him and used 200,000 pounds more, in the 200 miles of sewers in Detroit. He then purchased three tons of brimstone, and burnt it in iron pails let down into the manholes by chains. He found that the sulphurous acid gas travelled through the sewers faster than he could travel on the surface in his buggy. The penetrating odor of the gas discovered innumerable defects in house plumbing, and he related some very ludicrous scenes in that connection. It was found that the disinfection caused a marked diminution in the number of cases of diphtheria and scarlet fever—or almost a total cessation of those diseases. The whole cost was less than $1300.

The last paper read was that of DR. BENJAMIN LEE, of Philadelphia, entitled

THE DEBIT AND CREDIT ACCOUNTS OF THE PLYMOUTH EPIDEMIC.

His theory was that the epidemic originated from Philadelphia. He stated that there were 1153 cases, which cost $59,100.17; hospital cases, $8000; loss of earnings to patients and others, $30,020.08; capital represented by loss of income of 114 persons who died, $613,984; Total, $711,104 25.

RHODE ISLAND MEDICAL SOCIETY.

Semiannual Meeting, held at Providence, December 17, 1885.

(Specially reported for THE MEDICAL NEWS.)

THE PRESIDENT, OLIVER C. WIGGIN, M.D., IN THE CHAIR.

THE Committe appointed at the last quarterly meeting to consider a communication from the American Medical Association upon

STATE REGULATION OF THE PRACTICE OF MEDICINE,

reported as follows: "It is our opinion that an Act to regulate the practice of medicine would prove of very

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great value to our citizens, and, if presented in a proper form, would be readily adopted by the Legislature. But we do not believe that the proposed Act referred to is well adapted for the purpose, as it is not only lengthy and cumbersome, but would establish a new branch of the State Government, and on this account alone would be sure to meet with strong opposition. We suggest that a better plan would be to place the licensing power in the hands of the State Board of Health, making such changes in the constitution of the Board as will be necessary."

The report was adopted.

The Chair then announced the following appointments:

DELEGATES TO MEDICAL SOCIETIES.

Maine.—Drs. A. D. Weeks and W. H. Traver.

New Hampshire.—Drs. W. F. Hutchinson and G. W. Jenckes.

Vermont.—Drs. E. M. Snow and W. R. White.

Massachusetts.—Drs. E. T. Caswell and W. F. Morrison.

Connecticut.—Drs. A. G. Browning and W. H. Palmer.

New York Medical Society.—Drs. C. O'Leary and A. Potter.

New York Medical Association.—Drs. S. W. Francis and J. H. Morgan.

New Jersey.—Drs. F. B. Fuller and C. H. Fisher.

BOARD OF MEDICAL EXAMINERS:

Drs. G. W. Carr, term to expire in 1886; F. B. Fuller, term to expire in 1887; J. W. Mitchell, term to expire in 1888; R. F. Noyes, term to expire in 1889; Charles O'Leary, term to expire in 1890.

The Board of Censors also nominated Dr. William R. White for

ANNIVERSARY CHAIRMAN

at the next annual meeting, and the nomination was approved by the Chair.

DR. GEO. F. KEENE read a paper upon

A NEW METHOD OF TREATING COLLES'S FRACTURE,

and showed a new splint of his own devising, made of a piece of telegraph wire bent first into the shape of a hairpin and then bent upon itself some three and a half inches from the curved extremity, nearly at right angles. The larger and free ends of the wire were united by two pieces of tin, looped over each, the tin being slightly curved so as to fit the shape of the arm. This splint, suitably padded, is to be applied to the palmar surface of the forearm, with the palm of the hand resting against the bent loop of wire, in a position of *extension* on the forearm, rather than flexion, as is the case when the ordinary splints are used. Dr. Keene had used his splint in three cases with most satisfactory results.

DR. CASWELL said Dr. Keene's idea was contrary to all previous positions recommended in the treatment of this injury, and that he should like to give it a trial. His own impression was, however, that if the fracture be properly reduced at the outset, it makes little difference what apparatus is employed subsequently, provided passive motion is employed early enough.

DR. W. F. MORRISON reported

A CASE OF PYELONEPHRITIS,

and showed a specimen which was a right kidney weighing fourteen ounces, and containing five pouches which had been found to be filled by about four ounces of pus, altogether. These sacs or pouches were about the size of English walnuts. In three of them were imbedded brownish calculi, respectively 2, 1¾, and 1½ inches in length, about ½ inch in diameter and of irregular shape. The patient was a woman forty-four years old and a correct diagnosis was made some weeks before her death.

A paper on *Nasal Catarrh; Its Immediate and Remote Effects*, by Dr. F. P. Capron, was read by its title and referred to the Publication Committee.

THE PRESIDENT read a paper on

CLINICAL OBSERVATIONS ON THERMIC FEVER.

The clinical history of three cases of sunstroke was given in detail. All were successfully treated. In one case cerebral meningitis developed, which the writer thought would probably have been prevented if venesection to the extent of two or three pints had been performed at the onset. In another case the patient, a woman, was, when first seen by the writer, in a condition so critical that death seemed imminent. She was made to inhale about a drachm of chloroform, which fortunately was available at the instant, and which apparently was the means of warding off death.

The method of treatment in these cases embraces the free application of cold water, or of hot water, according to the bodily temperature and the condition of the cutaneous circulation; the administration by the mouth or rectum, of a decoction of table tea (2 ozs. of Formosa to a pint of water), giving ℥ij every two hours; the elixir of the valerianate of ammonia; the bromides; the lancet or leeches to relieve cerebral engorgement.

THE CHAIR announced the

DEATH OF DR. JOHN W. SAWYER,

Superintendent of the Butler Hospital for the Insane, and one of the Vice-Presidents of this Society, which occurred on the 14th inst.

The following preamble and resolutions were adopted by a rising vote:

Whereas, An inscrutable Providence, who wounds only that through His own mysterious reasons He may really benefit, has taken from the Rhode Island Medical Society its beloved Vice-President, Dr. John Woodbury Sawyer; therefore

Resolved, That in Dr. Sawyer not only had the Butler Hospital a medical superintendent whose first and only thought was the welfare of the unfortunates whom it was his duty to protect, to care for, and to heal, but a judicious adviser, who added much to its previous reputation as a model institution.

Resolved, That the loss of Dr. Sawyer is one equally great to the city of his residence and to the State at large, so many of whose citizens have had occasion to require his kindly skill.

Resolved, That the Rhode Island Medical Society mourns its deceased brother, whose mere acquaintance was a pleasure, and whom to know was to love. Gentle and yet decided, modest always, and wholly forgetful of self, learned in his special department of professional labor, and yet inferior to none as a general practitioner, his death leaves a void which time can but imperfectly fill.

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Resolved, That the President and Secretary, in behalf of every member, tender to the bereaved widow and orphaned son of the deceased their sincere and heartfelt condolence, and their sense, not only of collective, but of personal, bereavement.

Resolved, That a committee be appointed by the Chair to attend the funeral of Dr. Sawyer in behalf of this Society, as an additional mark of sympathy and respect.

CORRESPONDENCE.

EXTRAUTERINE PREGNANCY CHANGED TO INTRAUTERINE BY FARADIZATION.

To the Editor of THE MEDICAL NEWS.

SIR: I have just read Dr. Garrigues's case of "Extrauterine Pregnancy Changed to Intrauterine by Means of Faradization," in your issue of the 12th inst., and would like to call attention to the fact, not mentioned by Dr. Garrigues, that in 1878 I reported a similar case to the New York Obstetrical Society (meeting June 11, 1878, see *Am. Journ. Obs.*, vol. xii. p. 330, 1879), in which the presumptive diagnosis of tubo-uterine pregnancy on the left side was made, with as much certainty as can exist in any such case, by the attending physician and myself, and in which the uterus was found empty, and spontaneous delivery of a three months' fœtus occurred on the next day.

In that report I spoke of McBurney's case (referred to by Garrigues), and also those of Poppel, Monteil, Pows, and Braxton Hicks (not mentioned by Garrigues), where, in a tubouterine gestation, the tubal orifice was so dilated as to allow the ovisac to protrude into the uterine cavity; and also the case of Lenox Hodge, who dilated the uterine orifice of the tube, and thus induced the expulsion of the fœtus through the natural passages.

As my case seems to have been overlooked, I hereby desire to recall it to the attention of the profession. The success of electricity in inducing contraction of the tube and propulsion of the fœtus into the uterine cavity was, I believe, accidental in McBurney's case, where the galvanic current was employed, and the object was to kill the fœtus in a supposed tubal pregnancy; the adaptation of faradism to the former purpose is ingenious, and, I think, worthy of trial; although success can be hoped for only when the uterine orifice of the tube and the uterine cavity itself are already dilated, when the ovisac protrudes into the uterine cavity, and when the circular fibres of the tube are well developed. In case of failure to produce the intrauterine propulsion of the ovum, the faradic current most probably will do no harm, since the destruction of the fœtus must be the next best result to be obtained from that treatment.

Respectfully,

PAUL F. MUNDÉ.

20 WEST 45TH STREET, NEW YORK,
December 19, 1885.

NEWS ITEMS.

HARVARD UNIVERSITY.—Dr. J. P. Reynolds has resigned the Professorship of Obstetrics in the Medical School of Harvard. It is stated that his course will be completed by Dr. William L. Richardson, the present Assistant Professor of Obstetrics in the School.

THE ALUMNI ASSOCIATION OF THE WOMAN'S HOSPITAL IN THE STATE OF NEW YORK will hold its first meeting at the New York Academy of Medicine, Wednesday, January 20, 1886. The order of exercises comprises a morning session from 9.30 A. M. to 1 P. M. After the address of the Chairman, Dr. James B. Hunter, papers will be read on The Treatment of Cancer of the Uterus; High Amputation *vs.* Total Extirpation, by Dr. William H. Baker, of Boston; on The Use of the Uterine Dilator in the Treatment of Dysmenorrhœa, and as an Aid in Intrauterine Therapeusis, by Dr. W. Gill Wylie, of New York; and on Local *vs.* General Treatment in Gynecology, by Dr. Andrew F. Currier, of New York.

An afternoon session will be held from 2 to 5 P. M., and papers will be read on The Non-surgical Treatment of Anterior Displacement, by Dr. P. H. Ingalls, of Hartford; A Brief Study of the Causes of Retroflexion and Prolapse of the Uterus, by Dr. George T. Harrison, of New York; and on The Exaggerated Importance of Minor Pelvic Inflammations, by Dr. Henry C. Coe, of New York. In the evening a business and social meeting will be held at 8 P. M.

THE ANNUAL ADDRESS BEFORE THE ACADEMY OF SURGERY OF PHILADELPHIA will be delivered by Dr. R. J. Levis, on Monday evening, January 4th, at 8 o'clock, at the Hall of the College of Physicians. Subject, "Impediments to the Progress of American Surgery."

DEATH OF MR. T. JOLLIFFE TUFNELL.—T. Jolliffe Tufnell's treatment of aneurism is known in all civilized countries, and it was a subject of which he made a lifelong study. Probably the last time he spoke in public was during the last session of the Academy of Medicine, when, consequent on a discussion which took place on a case of aneurism of the abdominal aorta, he recapitulated the most important points in the treatment which he believed to be essentially necessary. Mr. Tufnell was a Fellow of the Medico-Chirurgical Society of London, and a Fellow of the Academy of Medicine in Ireland. His contributions to medical literature included the following monographs: "The Treatment of Aneurism by Compression;" "The Successful Treatment of Internal Aneurism;" and "Stricture of the Rectum, with a new form of Bougie." He died on the 29th ult., at the age of sixty-seven, after a tedious illness.—*The Lancet*, Dec. 5, 1885.

LONDON ANTHROPOLOGICAL SOCIETY.—At a meeting of this Association, held on Tuesday week, Mr. Francis Galton, F.R.S., the President, exhibited, on behalf of Dr. Billings, of the United States Army, a collection of composite photographs of skulls. There were in all 20 photographs, forming four series, referring respectively to Sandwich Islanders, ancient Californians, Arapahoe Indians, and Witchitaw Indians, and each composite was the mean of six adult male skulls.—*Medical Times and Gazette* (London), Dec. 5, 1885.

THE OUTLOOK FOR THE CONGRESS.—The present Executive Committee has invited the former Committee to unite with it in its work of organization, but this invitation was declined by the Original Committee, except upon the condition that the present Executive Committee unite with them the Original Enlarged General Com-

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mittee, and recommence the organization *de novo*. We are not informed whether the present Committee, which professes to have such a deep interest in the success of the Congress, has assented to this proposition. It seems to us that the plan proposed is the only harmonious solution of the differences which has been presented. This proposition gives a definite shape to the present muddle and enables all of the discordant elements to meet upon a common platform. A new Committee, consisting of the Original Committee of eight, of the Original Enlarged Committee, and of the present Executive Committee, unrestricted by former appointments, would be able to organize the Congress on an entirely new basis. The appointments of this Committee would be made from the entire profession, and would, no doubt, be given to men who best represent the American profession. The question of the "Code," the aspirations of ambitious office-seekers, the claims of Colleges and sections, and the demagogues in the profession would, no doubt, be relegated to the background. If it is upon the basis of this plan of organization that the present Executive Committee is warranted in announcing the success of the Congress, we believe its assurances will be verified. Upon any other basis we do not think the Congress will prove a success, and we shall believe that the assurances of the Executive Committee are but empty and hollow promises. We trust a solution of the present differences may be reached after the plan proposed, and that the profession will then join hands over the chasm and work for the success of the Congress of 1887.—*Maryland Medical Journal*, Dec. 19, 1885.

The Medical Record gives the following editorial note from the *St. Petersburg med. Wochenschrift* of Nov. 21: "The prospects of the next International Medical Congress, which was to meet in 1887 at Washington, have lately, in an unusual manner, been put in jeopardy. The original Organizing Committee, of which, as announced by us in previous communications, the well-known Surgeon-General of the U. S. Army was secretary-general, and to which the most distinguished American physicians belonged, has been retired. This was accomplished through the intrigues and hostility which developed at the last annual meeting in New Orleans. At this time a new committee was appointed under the presidency of a Dr. Shoemaker, of Philadelphia. This new organization committee contains but a few of the members of the previous committee, and is composed mostly of unknown and insignificant physicians, who inspire no confidence in their capacity for conducting the Congress. Under such circumstances any coöperation from foreign countries can hardly be expected."

OBITUARY RECORD.—DR. JOHN W. SAWYER, Superintendent of the Butler Hospital for the Insane, Providence, R. I., died at that institution, on the 14th inst., of blood poisoning, after an illness of only three days.

Dr. Sawyer was fifty-one years of age. He was formerly assistant physician at the same hospital, then under the superintendence of the late Dr. Isaac Ray. Subsequently he was Superintendent of the Madison Hospital for the Insane, in Wisconsin. At the close of the year 1866, upon the resignation of Dr. Ray, Dr. Sawyer became Superintendent of the Butler Hospital, which position he has since filled with marked ability and to the complete satisfaction of the Board of Trustees.

Wholly devoted to his special line of work, Dr. Sawyer rarely allowed himself any recreation or rest from the exacting duties of his position, but was persuaded to spend three months in Europe during the past summer. In appearance a quiet, unobtrusive man, he possessed the firmness and courage essential to success in his specialty, as an expert in which his opinion was much sought and esteemed, both in the medical profession at large and in courts of law.

—— At New York, on December 20, 1885, of pneumonia, after an illness of only two days, JOHN C. DRAPER, M.D., Professor of Chemistry and Physics in the Medical Department of the University of the City of New York.

Prof. Draper was born in Virginia, on March 31, 1835, and was the oldest son of the late Professor John H. Draper. He received his early education at the University of the City of New York, but in 1854 he left that college in his junior year to begin the study of medicine. Three years later he was graduated from the Medical Department of the University. In the last year of his school life he held the position of house physician and surgeon in Bellevue Hospital. The year following his graduation was spent in Europe, where he continued his medical studies. In December, 1858, he was made Professor of Analytical Chemistry in the University of the City of New York. He held the position for thirteen years. From 1860 to 1863 he was Professor of Chemistry in the Cooper Institute. During the Civil War Dr. Draper served for six months as a surgeon on General Ward's staff at Harper's Ferry, and was there at the time of its surrender. In 1863 he occupied for the first time the chair of Natural History in the College of the City of New York, which he has since held. In 1866 he became Professor of Chemistry in the Medical Department of the University.

As an author, Professor Draper was widely known. His original researches were made in the domain of chemistry, embracing all its branches, and always having a distinct bearing on the advancement of medical knowledge and practice. Professor Draper published his first book in 1865, it was a text-book on anatomy, physiology, and hygiene. He edited Scribner's *Year Book of Nature and Science* for 1872, and Draper's *Year Book of Nature and Science* the year following, and up to 1876; he also edited the department under this head in Scribner's *Monthly*. Besides a large number of scientific papers of considerable importance published subsequent to this, Professor Draper published, in 1882, a *Practical Laboratory Course in Chemistry*. His last work was a text-book of *Medical Physics*.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

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